

BACCALAUREATE PROPOSAL APPLICATION
Form No. BAAC-02

Section 1007.33(5)(d), Florida Statutes, and Rule 6A-14.095, F.A.C., outline the requirements for a Florida College System baccalaureate program proposal. The completed Proposal form shall be submitted by the college president to the Chancellor of the Florida College System at ChancellorFCS@fldoe.org. In addition, a printed version shall be mailed to the Division of Florida Colleges at 325 West Gaines Street, Suite 1544, Tallahassee, Florida 32399-0400.

The proposal requires completion of the following components:

- Program summary
- Program description
- Workforce demand and unmet need
- Planning process
- Enrollment projections and funding requirements
- Student costs: tuition and fees
- Program implementation timeline
- Facilities and equipment specific to program area
- Library and media specific to program area
- Academic content
- Program termination
- Appendix tables
- Supplemental materials

Florida College System Institution Name: Eastern Florida State College
 Florida College System Institution President: Dr. James Richey

PROGRAM SUMMARY

1.1	Program Name:	
1.2	Degree type:	<input checked="" type="checkbox"/> Bachelor of Science <input type="checkbox"/> Bachelor of Applied Science
1.3	How will the program be delivered (check all that apply):	<input checked="" type="checkbox"/> Face-to-face <input checked="" type="checkbox"/> Hybrid <input checked="" type="checkbox"/> Online only
1.4	List the counties in the college's service district:	<u>Brevard</u>
1.5	Degree CIP code (4 or 6 digit):	<u>13.1316</u>
1.6	Anticipated program implementation date:	<u>Spring 2021</u>
1.7	What is the primary associate degree pathway for admission to the program?	<u>Associate in Arts Degree</u>

- 1.8 Is the degree a STEM focus area? Yes No
- 1.9 List program concentration(s) (if applicable): Science Teacher Education Track 1
Biology
- 1.10 Will the program be designated such complete the program for a total cost of no more than \$10,000 in tuition and fees? Yes No

PROGRAM DESCRIPTION

2.1 Describe the program.

Eastern Florida State College proposes to offer Brevard County residents the opportunity to earn a Bachelor of Science in Science Teacher Education degree with an initial track in Biology. The College will follow its long-standing tradition of making learning relevant through real-world applications of theory. The purpose of the Bachelor of Science in Science Teacher Education is to provide the Space Coast with a highly skilled applicant pool to fulfill workforce job demands in the area of secondary science education. The Department of Economic Opportunity (DEO) estimates that there are 167 annual openings for middle and secondary teachers in Brevard County alone. As identified by the Florida Department of Education (FLDOE) Critical Teacher Shortage Areas, science teachers are among the highest critical shortage areas in the state of Florida. Eastern Florida State College (EFSC) is committed to meeting the demands of the Brevard Public School (BPS) district by developing a Bachelor of Science degree in Science Teacher Education, with an initial focus on Biology (Track 1). The College will use existing bachelor's level science courses from the current Bachelor of Applied Science (BAS) programs in Biotechnology and Biomedical Science. The Bachelor of Science in Science Teacher Education will also use existing bachelor's level education courses from EFSC's current EPI program. By utilizing existing bachelor level courses from a current degree track, only six education courses will need to be written to complete the proposed program. The structure of the Bachelor of Science in Science Teacher Education degree program will allow students to take education courses in cohorts and then go out into the science department to take science courses such as Biology of Microorganisms, Cell Biology, Developmental Biology, Genetics, and Zoology. Course maps will be developed and provided for students.

As a best practice, 21st century science educators provide a scientific perspective to their students through a wide range of information. The science education biology major is EFSC's first step to prepare future secondary science teachers for their careers with a broad science background. The first specialization will be in biology, but specializations in the physical sciences, life sciences, Earth sciences, and space sciences can be added to incorporate a wide STEM content understanding. The major will also integrate education coursework and middle and high school classroom internships designed to develop skills and knowledge relevant to teaching grades 6-12 students in

the state of Florida. The intent is to provide specialized science content preparation, educational theory, and educational practice to meet the needs of the local school district by expanding the knowledge and skills base of educators in middle and secondary schools and producing strong candidates for teacher certification.

According to BPS, Brevard County has lost 54 science teachers in the last three years alone, due to retirement and personal reasons. Five science teacher vacancies were listed on the BPS website in the middle of November 2019, with more anticipated in 2020. This degree program will provide an affordable opportunity for students completing an Associate in Arts degree to seamlessly continue and complete a baccalaureate degree in Science Education. Education is a popular major for AA graduates to pursue after transfer. National Student Clearinghouse (NSC) subsequent enrollment data reveals that 174 EFSC AA graduates between 2014 and 2018 enrolled in an education degree program (CIP Code starting with 13) at another institution after completing their degree at EFSC.

WORKFORCE DEMAND AND UNMET NEED

3.1 Describe the career path and potential employment opportunities for graduates of the program.

Students graduating from the Science Teacher Education Program at EFSC will have employment opportunities in BPS as secondary teachers in various science disciplines with the ability to receive certification in Biology. In addition to EFSC students completing volunteer hours in BPS classrooms for lower level education classes, the College has partnered with the school district in an effort to keep teachers in Brevard County. One example of this close working relationship with BPS is being part of the District's Advisory Committee for Teaching Academies at Bayside High School and Space Coast Jr/Sr High. Eastern Florida State College established a College Credit Certificate (CCC) that BPS students could either obtain by completing their program or Dual Enrolling in EFSC education classes. The College also created an AS Degree in Educational Technology Assistant, which started in Fall 2019 as another alternative for BPS students.

In addition, EFSC is working with BPS to help the District's current instructional assistants become teachers. Online courses, hybrid courses, and Friday and weekend courses are being offered to meet the needs of these working individuals who want to become teachers and remain within Brevard County.

Brevard Public Schools has also been a part of the College's Educator Preparation Institute (EPI) planning process and has attended College advisory meetings for EPI. The District agreed to let the College's students complete internships in the public schools. The District welcomed the addition of a secondary science degree in order to increase its number of teachers. As a willing, active participant in the development of a bachelor's degree in education, BPS agreed to hire the College's graduates. (See Appendix B.1.b.)

Graduates of the BS in Science Teacher Education can also find employment in charter

schools and/or private schools. Currently BPS has 12 middle schools, 12 high schools, four junior/senior High Schools, 14 charter schools, one alternative learning center, four Adult Education Centers, and Brevard Virtual School. In addition, there are 20 private schools located throughout the county.

- 3.2 Describe the workforce demand, supply and unmet need for graduates of the program that incorporates, at a minimum, the shaded information from appendix tables A.1.1 to A.1.3.

Significant science teacher vacancies exist in Brevard County, as well as the state of Florida. Since the 2014-2015 school year (SY), Science Education has been identified by the Florida Department of Education as the top critical shortage area in the state in the 2014-2015 SY; the 2016-2017 SY; the 2018-2019 SY; and 2109-2020 SY. The Florida Department of Economic Opportunity (FLDEO) projects an increase for both middle and secondary school teachers of close to 10% between 2018 and 2026, with 167 annual openings. The average annual supply of general science teachers from state universities in Florida has been about 18 graduates, with 18 graduating in the most recent available year. The FLDEO projects 1,341 total job openings between 2018-2026, with 514 middle school teacher openings and 827 secondary school teacher openings. Using these demand projections, the potential unmet need is estimated at about 149-160 teachers per year.

Additional evidence of workforce demand was gathered from Economic Modeling Specialists International (EMSI) data for middle and secondary school teachers in Brevard County and surrounding areas. The EMSI data show even more demand than FLDEO for both middle and secondary school teachers, with 198 annual openings and an increase of more than 23% for each Standard Occupational Classification (SOC) report. EMSI projects 1,585 total job openings between 2018 and 2026, with 480 middle school (SOC Code 25-2022) and 1,105 secondary school (SOC Code 25-2031) teachers, as shown in Appendix A.1.1. Using these demand projections, the potential unmet need is estimated to be approximately 176-181 teachers per year.

- 3.3 Describe any other evidence of workforce demand and unmet need for graduates as selected by the institution, which may include qualitative or quantitative data information, such as local economic development initiatives, emerging industries in the area or evidence of rapid growth, not reflected in the data presented in appendix tables A.1.1 to A.1.3. For proposed programs without a listed SOC linkage, provide a rationale for the identified SOC code(s).

Brevard Public Schools hired 28 secondary science teachers between August 2018 and April 2019, four of whom have left. Brevard County has many charter schools and private schools, all of which will also need science teachers in the next several years. Additionally, Teacher Job Fairs have not yielded the results to meet the growing needs experienced by the Brevard Public Schools. The District is actively working with EFSC to try and retain teachers in the county. Letters of Support can be found in Appendix B.1.a.

- 3.4 If the education level for the occupation identified by the Florida Department of

Economic Opportunity presented in appendix table A.1.1 is below a bachelor's degree, provide justification for the inclusion of that occupation in the analysis.

N/A

PLANNING PROCESS

4.1 Summarize the internal planning process.

The internal planning process has been an ongoing, organic effort since the Spring of 2016 when the Vice President of Academic & Student Affairs/Chief Learning Officer (CLO) initially authorized the research and planning on the feasibility of offering a Bachelor of Science Degree in Education with Elementary and Secondary Specializations to meet the increased demand for teachers in Brevard County and at the direct request of the Brevard Public School Superintendent. College administration engaged in internal and external analyses to determine need and feasibility. An initial step in the planning process included the review of other Education-related bachelor's Degrees developed at state colleges in Florida, such as Broward, Daytona, Indian River, Chipola, and Miami Dade State Colleges, as well as discussing specific needs with the Superintendent of Brevard Public Schools. In January 2017, EFSC worked with the University of Central Florida to develop ways to meet the continued needs of Brevard Public Schools. In the initial proposal, UCF suggested building a franchise where EFSC instructors would teach upper division courses on EFSC campuses, thereby allowing students to stay in Brevard County to complete coursework. (See Appendix B.1.b.) The logistics of this proposal did not move forward; therefore, it never came to fruition.

However, the need for Brevard County teachers remained, so the planning for a bachelor's program at EFSC continued. Both BPS and EFSC shared the collective goal of retaining students in Brevard County for prospective employment within the school system. The Superintendent of Brevard Public Schools reached out to EFSC faculty, administration, and the Vice President of Academic and Student Affairs/CLO to appeal for as many teacher-preparation programs as possible and mentioned STEM related areas as being the most critical. It was clear that multiple pathways were needed to produce teachers for the Brevard County workforce. EFSC formed articulation agreements with other colleges in the state, investigated EPI programs, and developed lower level programs to try and meet the needs of Brevard Public Schools. Each of these avenues are defined in detail in Section 4.2 below.

Additional EFSC internal processes included having faculty and administration review current course options, the current articulation agreements, the availability of faculty to teach in such a program, and the adequacy of the current facilities. Multiple departments were involved in the planning process, and based on the suggestion of a STEM focus, included faculty from the Education and Science clusters, Academic Affairs, and administration and staff from Student Affairs.

As the internal planning process continued, statewide FLDOE data was reviewed to determine the subject areas with the greatest need for teachers. Secondary science

topped the list, as the highest need in the county. Taking into consideration the statewide data, the urging of BPS Superintendent, and anecdotal requests from students, the Vice President of Academic and Student Affairs/CLO approached the EFSC President about the possibility of providing a bachelor's degree in Science Education. With the President's approval, the degree proposal was presented to the Board of Trustees. The Board of Trustees approved the development of a bachelor's degree in Science Education. Meeting minutes are attached in the appendices to show these interactions specified (Appendix B.1.d.).

College representatives next met with stakeholders in Brevard County. Having confirmed community interest, the College followed its program development process to verify the need for teachers in secondary science education in the county. Through this process, the program was approved, at which time, within the guidelines of the Curriculum Development Committee (CDC), faculty with content expertise developed each course in the program. The courses were reviewed by the CDC, the Academic Affairs Council (AAC), and administration before going to the state for approval. A few of the courses needed for the Bachelor's degree had previously been approved through this process and are part of the College's existing EPI Program.

4.2 Summarize the external planning process.

Brevard Public Schools approached the College about a significant need for educators in the public-school system in Brevard County. The District stated it would hire any student that the College could prepare at a bachelor's level. In addition, these science teachers are needed at the various charter and private schools in Brevard County. When BPS requested educator training, representatives from the College met with representatives from BPS to determine the type and extent of the need. Specifically, the Superintendent of Schools met with the Provost of the Palm Bay Campus, the Provost of the Melbourne Campus, the Associate Vice President of Student Affairs, the Vice President of Academic and Student Affairs/CLO, and members of the EFSC Education Faculty to discuss the need for teachers in Brevard. The College since received letters of support to develop the Bachelor of Science in Science Teacher education program. See Appendix B.1.a.

Eastern Florida State College has a 60-year history of building and maintaining partnerships with four-year universities in its service district. The College currently has an articulation agreement with the University of Central Florida (UCF) for an Associate of Arts (AA) Degree with a Pre-Major of Elementary Education or an Associate of Arts Degree with a Pre-major in Early Childhood Education for graduates to transfer to UCF into a Bachelor of Science in Elementary Education or Early Childhood Development. Secondary Science Education was not included in this articulation agreement. According to UCF transfer data, about 40 AA graduates enter UCF Education Programs each fall term, with the majority in elementary education. Although the majority of EFSC graduates transfer to UCF, BPS stated the current agreement is not producing enough educators to meet the local need, specifically the need for secondary science teachers. Secondary teacher education programs are

only available in Orlando. Brevard Public Schools' main concern is when the students leave to go to Orlando, they don't come back. The District wants to grow its own teachers by creating opportunities for students to complete their schoolwork and internships in Brevard County.

The University of Central Florida offers an elementary teaching program in Brevard County located on the EFSC Cocoa campus; however, the program is not producing enough teachers. In 2017, the College approached St. Petersburg College (SPC), an institution with whom the College has collaborated previously on other programs, to review their education programs and the steps in the accreditation process. As a result, the College established an articulation agreement that would allow EFSC students to complete their bachelor's degree online with St. Petersburg and stay in Brevard County for their practice teaching. The limitation of the online program is that it only applied to elementary education and did not meet the needs of future secondary teachers. Since the creation of this articulation agreement in November 2017, one student has taken advantage of this opportunity.

College representatives then discussed with BPS an option to develop an Educator Prep Institute (EPI) as an alternative way to pull teachers into Brevard County. The College reviewed EPI programs in surrounding counties and focused on a model used at Indian River State College (IRCC) that used existing lower division and upper division education courses for its EPI Program instead of non-credit courses. This EPI model used both lower and upper division education courses that bolstered existing education classes while awarding college credit to EPI students. After meeting with IRCC representatives in February 2018 (see meeting minutes in Appendices), the College adopted a model for an EPI program inclusive of lower and upper division courses to allow for a future addition of a bachelor's program to meet Brevard County needs. The College met with BPS again to discuss next steps for the EFSC EPI program. (See Appendix B.1.b.) Finally, EFSC met with state officials and developed the EPI application, which was then submitted and approved by the State in April 2019.

The development of the EPI Program was one avenue to provide a pathway for teachers into Brevard County; however, the District wanted more avenues. Its number of teachers, as seen in attached appendices, is at an all-time low. The District asked EFSC to develop a pathway unique to high school students interested in the teaching profession. The District then created a Teaching Academy, including EFSC representatives on its advisory committee. Through those meetings, the District requested a way for students with GPAs below 3.0 to dual enroll in EFSC Education courses. The College developed a College Credit Certificate (CCC), allowing students with a minimum GPA of 2.5 to dual enroll at EFSC. The College then created an advanced standing agreement allowing BPS students to continue at EFSC and receive credit for their academy curriculum if they finished the CCC at EFSC. The CCC led to the creation of the Associate in Science (AS) degree in Educational Technology Assistant, providing another avenue in education for students who want to work in schools but are not ready to become teachers. The program of study for

the CCC is at the end of Appendix B.1.b.

The EPI program, CCC, and AS Degree are the beginning steps to help BPS as it continues to face an educator shortage. However, as stated in Section 3.2, science-related teaching areas are at an all-time low. While the new programs created by EFSC are helping create pathways for teachers, these programs do not specifically address the need for science teachers. Therefore, the College met with the University of Central Florida (UCF) and discussed the need to expand options for students going into secondary science education which would augment, not compete with, UCF’s programs. The University of Central Florida only offers science education teacher preparation programs in Orlando, so no conflict of interest exists for the College to create a secondary science teacher preparation program in Brevard County. The only other school that has offered secondary science teacher programs in Brevard is Florida Institute of Technology (FIT). However, FIT no longer offers this program as an option for undergraduates. The need for science teachers and the lack of any type of science education program in Brevard County led the College to recommend to the EFSC Board of Trustees the creation of a Bachelor’s of Science degree in Science Education. On April 15, 2019, the Board approved the recommendation to pursue a bachelor’s degree in science education. See Appendix B.1.d.

Science Education students will be mainstreamed into upper division education courses with EPI students and into existing Bachelor of Applied Sciences (BAS) in Biotechnology courses, increasing enrollment in both programs.

- 4.3 List engagement activities; this list shall include APPRiSe, meetings, and other forms of communication among institutional leadership regarding evidence of need, demand, and economic impact.

Table 4.1

APPRiSe	Date(s)	Institution	Description of activity
Public universities in college’s service district	2/4/2019 4/25/2019	University of Central Florida	Meeting to discuss need to start this program. Email concerning intent to start the program. Sent to consortium members 5/17/2019.
Regionally accredited institutions in the college’s service district	5/13/2019	UCF Consortium Work Force Team	Responded by email, “No Concerns.”

	20/2019	Daytona State College	Responded by email, "We support this proposal."
	5/20/2019	College of Central Florida	Responded by email, "I certainly support the proposal."
	5/21/2019	Lake Sumter State College	Responded by email, "LSSC supports this degree."
	5/21/2019	Seminole State College	Responded by email, "Seminole State supports this degree."
	5/28/2019	Valencia Community College	Responded by email, "Valencia does not have objections to the proposed degree".

Note: There are no private universities in the area offering Science Education as an undergraduate degree.

ENROLLMENT PROJECTIONS AND FUNDING REQUIREMENTS

- 5.1 Provide a brief explanation of the sources and amounts of revenue that will be used to start the program.

The 120-hour program will generate approximately \$13,681 in tuition and fee revenue per student during the course of the program. With the average student taking 24 credits per year, combined with projected enrollment figure of 25 for the first year, this would amount to a total first year revenue of \$77,106 in tuition dollars alone (Eight 3000/4000 level 3-credit courses - 24 credit hours total @ 128.51/per = \$3,084.24 X 25 = \$77,106). Revenue calculations for Table A.2 are based on tuition alone for upper division credits, which is \$91.79 per credit hour. This number will increase to \$339,266 in the fourth year based on conservative enrollment projections (110 X 24 X \$128.51 = \$339,266). In addition to tuition, the college anticipates utilizing Florida College System program funds of \$39,610 the first year. It should be noted that through institutional scholarships and waivers, EFSC will support the option of the \$10,000 Bachelor's degree.

- 5.2 Provide a narrative justifying the estimated and projected program enrollments, outcomes, revenues and expenditures as they appear in Appendix Table A.2.

The enrollment projections for the Bachelor of Science in Science Teacher Education are conservative and reasonable. The projections are based on enrollment at EFSC in AS and certificate programs with a science focus and a review of AA graduates who transfer and earn science related bachelor's degrees. The enrollment increases will be spurred by specializations within the education degree to starting with biology and eventually including chemistry, physics, earth sciences, and a middle-grades science teacher track. The College has multiple science-based programs such as the AS Chemical Technology program and CCC Scientific Workplace programs that could become potential pathways for students interested in pursuing a Bachelor's in Science Education degree. These two programs alone have consistently enrolled more than 300 students per year and more than 100 completions, which shows the interest in science related programs at EFSC. The College would promote a clear pathway from the AA Degree towards the Bachelor of Science in Science Teacher Education program. Students in the AS program would be advised to take general education coursework for electives but also advised they would be required to take extra coursework if they pursue the bachelor's degree. The AA degree would be the preferred pathway. Using subsequent enrollment data obtained from the National Student Clearinghouse (NSC) to review what sort of programs AA graduates pursue, we can see student interest in science-related bachelor's degrees. During academic years 2014-15 to 2017-18, more than 500 AA graduates from EFSC sought biology, chemistry, and physics bachelor's degrees (Classification of Instructional Programs, or CIP Codes, starting with 26 and 40) and at least 60 went on to complete bachelor's degrees in biology, chemistry, and physics-related degrees.

The operating expenditures outlined in Appendix Table A.2 include academic administration and student services. Academic administration expenditures would be used to pay a stipend for a faculty program manager to help oversee curriculum development/updates, course scheduling, and program assessment. The student service expenditure would account for a portion of the salaries of academic advisors who support the new program.

STUDENT COSTS: TUITION AND FEES

- 6.1 Anticipated cost for a baccalaureate degree (tuition and fees for lower and upper division credit hours) at the proposing FCS institution (tuition and fees x credit hours).

Table 6.1

	Cost per credit hour			Number of credit hours		Total cost
Tuition & Fees for lower division:	\$104	X	Credit hours	71	=	\$7,384
Tuition & Fees for upper division:	\$128.51	X	Credit hours	49	=	\$6,297
Tuition & Fees (Total):	\$	X	Credit hours	120	=	\$13,681

- 6.2 Estimated cost for a baccalaureate degree (tuition and fees) at each state university in the college's service district.

Table 6.2

Institution Name: University of Central Florida

Tuition & Fees:	\$212.28	X	Credit hours	120--	=	\$25,473
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- 6.3 Estimated cost for a baccalaureate degree (tuition and fees) at each nonpublic institution in the college's service district (if available). *
- The following are nonpublic institutions in EFSC's service district; however, N/A has been provided as these institutions do not offer Bachelor of Science in Science Teacher Education degrees.

Table 6.3

Institution Name: Florida Institute of Technology- No longer offers the degree

Tuition & Fees:	N/A	X	Credit hours		=	
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Institution Name: Barry University – Does not offer the degree

Tuition & Fees:	N/A	X	Credit hours	--	=	\$-,---
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Institution Name: Kieser University- Does not offer the degree

Tuition & Fees:	\$N/A	X	Credit hours	--	=	\$-,---
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Institution Name: Walden University- Does not offer the degree

Tuition & Fees:	\$N/A	X	Credit hours	--	=	\$-,---
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Note. *If the institution does not provide the tuition cost per credit hour, please provide the cost information provided on the institution's website.

PROGRAM IMPLEMENTATION TIMELINE

7.1	APPRISe notice:	7/3/2019
7.2	Board of Trustees approval:	4/15/2019
7.3	Notice of Intent:	7/3/2019
7.4	Completed proposal submission:	10/14/2019
7.5	Targeted State Board of Education consideration:	Spring 2020
7.6	Targeted SACSCOC approval (if applicable):	Spring 2020
7.7	Targeted initial teacher preparation program	Spring 2020

approval (if applicable):

7.8 Targeted date upper division courses are to begin: January 2021

FACILITIES AND EQUIPMENT SPECIFIC TO PROGRAM AREA

- 8.1 Describe the existing facilities and equipment that will be utilized for the program.

The BS in Science Teacher Education will be held on the Palm Bay Campus. Lower division education classes could be taken at these EFSC campuses: Palm Bay, Cocoa, Melbourne (or online). The upper division Education classes will be taught at the Palm Bay Campus or online in order to keep the cohorts together. Once the program grows, the College will come up with a collegewide schedule to alternate the offerings of courses on different campuses. The Cocoa, Melbourne, and Palm Bay campuses have dedicated Education classrooms that are used specifically for Education classes. The Palm Bay Campus provides all the upper division science classes needed for this degree; however, they could be taken at any campus.

In the beginning the Palm Bay Campus will use the existing Education classroom and equipment. As the program grows an additional building is available with multiple classrooms.

CURRENT EDUCATION FACILITIES

Large classroom

Computer/Monitor

Whiteboard

Overhead Projector

Video Projector

Tables/Chairs

6 iPads (Computer classrooms are available both Mac Labs and PC Labs)

Cabinets and drawers on back wall to hold supplies

Paper/Construction Paper/Large Paper/Foam Paper

Boxes of scissors

Boxes of markers

Boxes of Highlighters

Boxes of Crayons

Boxes of Glue Sticks/Elmer's

Glue guns/Glue

Boxes of Tape Scotch/Packing Tape

Poster Board

Paper Cutter

Stickers

Whiteout

Rulers
Staplers
Craft supplies

EXISTING SCIENCE LABS

Palm Bay has six existing Science Labs: two Biology Labs, a Microbiology Lab, a Physics Lab, a Chemistry Lab, and an Anatomy and Physiology Lab. Each lab holds up to 24 students and has six tables with sinks and gas. Each lab has the appropriate safety equipment, listed below. fire extinguishers

Showers
eye wash stations
emergency power shut off switches
first aid kits
fire blankets
fume hoods.

Equipment current available at Palm Bay:

Biology Labs

Microscopes
Beakers (all sizes)
Graduated Cylinders (all sizes)
Erlenmeyer Flasks and other general glassware
Beaker Tongs
Crucible Tongs
Test Tubes, Test Tube holders, Test Tube Clamps
Hot Plates
Digital Scales
Spectrometer
Gel Electrophoresis
Jarred specimens
Slides of various animal and plant tissue
Bacteria, Fungi, and Protist slides

Chemistry labs

High Performance Liquid Chromatography (HPLC) with UV detector
Gas Chromatograph with FID (flame induction detector)
FT-IR spectrometer (Fourier Transform-Infrared) (being replaced)
Desktop spectrophotometers (we have 24)
pH meters (24)
Glass chromatography columns
Analytical balances with shields
Micropipets (repeating)
Dissolved solids meters (hand held)
Burets

Crucibles
 Drying ovens
 Rotary evaporators
 Organic specialty glassware
 General glassware
 Molecular and chemical models

Science labs are also available at the Titusville, Cocoa, and Melbourne Campuses with the same equipment. Students could take their science courses at other campuses if they deemed it necessary for their schedule.

- 8.2 Describe the new facilities and equipment that will be needed for the program (if applicable).
 No new facilities will be needed.

LIBRARY AND MEDIA SPECIFIC TO PROGRAM AREA

- 9.1 Describe the existing library and media resources that will be utilized for the program.

Existing Library/Media Resources: The College supports the research and educational needs of students, faculty and staff by providing access to library resources and services consistent with the degrees offered. Full-service libraries are available at the Cocoa, Melbourne, Palm Bay, and Titusville campuses. The College maintains a partnership with UCF, operating a joint-use library at the Cocoa campus. Existing resources relevant to the Science Education degree include 74 books, 3 eBooks, 33 DVDs, 213 streaming media titles, and access to 14 full-text journal titles available from 10 online databases, as illustrated in the table below.

Count of Existing Resources Supporting the BS in Science Education

Table 9.1

Program	Print & Media (All Campuses)		Electronic				
	Books	DVDs	eBooks	Streaming Media	e-Journal Subscriptions	Databases	Full-Text Journals
Science Education	74	33	3	213	0	10	14

All students have access to streaming media, eJournal subscriptions, online databases, eBook collections, and online library instruction tutorials. Through a statewide reciprocal borrowing agreement, students and faculty also have access to library materials from Florida public colleges and universities, as well as materials from other libraries via interlibrary loan.

- 9.2 Describe the new library and media resources that will be needed for the

program (if applicable).

New Library/Media Resources Needed

Librarians consulted standard collection development resources (e.g., *Choice, Resources for College Libraries*, etc.), EFSC faculty, and other Florida public colleges or universities offering a Science Education degree to identify additional resources needed to support the program. Existing resources were selected to support lower level 2-year programs, so additional upper level curriculum support materials will be needed. The proposed start-up budget for the Science Education BS includes \$7,250 in updated library resources over the course of the first three years, to be approved by the program faculty. This includes the projected cost for eJournal subscriptions and database annual license renewals and for adding newly published books, eBooks, and media. The needed materials and the start-up costs are outlined in the tables below to include all years.

New Book and eBook Resources to support the BS in Science Education

Table 9.2

Program	Books (All Campuses)			eBooks		
	Current Titles	Titles Needed	Estimated Cost	Current Titles*	Titles Needed	Estimated Cost
Science Education	74	125	\$6000	3	25	\$1000

*Format (book/eBook) determined by availability of item and course instructor.

New Audiovisual Resources to Support the BS in Science Education

Table 9.3

Program	DVDs (Campus)			Streaming Media		
	Current Titles	Titles Needed	Estimated Cost	Current Titles*	Titles Needed	Estimated Cost
Science Education	33	5	\$250	213	0	\$ 0

*Format (DVD/streaming media) determined by availability of item and course instructor.

New Periodical Subscriptions and Databases to Support the BS in Science Education

Table 9.4

Program	Current Full Text Periodicals	Additional Periodical Subscriptions Needed	
	Titles	Titles	Estimated Cost
Science Education	14	0	\$ 0
Program	Current Databases*	Databases Needed	
	Titles	Titles	Estimated Cost
Science Education	10	0	\$ 0

*Note: Total number of full text journals: 14

No additional Periodicals will be added to our current 14 Full Text Periodicals and current ten Databases. The cost is zero since we will not be adding new subscriptions at this time.

Summary of New Library Resources to Support the BS in Science Education

Table 9.5

Start Up Resources Year 1		Estimated Cost
Books		\$2000
eBooks		\$500
DVDs		\$100
Streaming Media		\$
e-Journal subscriptions (annual site license)*		\$ *
Databases (annual site license)*		\$ *
Total Start Up Costs Year 1		\$2600
*recurring cost		
Start Up Resources Year 2		Estimated Cost
Books		\$2000
eBooks		\$500
DVDs		\$100
Streaming Media		\$
e-Journal subscriptions (annual site license)*		\$ *
Databases (annual site license)*		\$ *
Total Start Up Costs Year 2		\$2600
*recurring cost		
Start Up Resources Year 3		Estimated Cost
Books		\$2000
eBooks		\$
DVDs		\$50
Streaming Media		\$
e-Journal subscriptions (annual site license)*		\$ *
Databases (annual site license)*		\$ *
Total Start Up Costs Year 3		\$2050
*recurring cost		

Formats (Book/eBook and DVD/streaming media) would be determined by availability of items and course instructor.

ACADEMIC CONTENT

10.1 List the admission requirements for the program.

The Biology Teacher Education Bachelor's degree is designed to provide a seamless articulation for students who complete an Associate of Arts Degree, with the prerequisite elective courses illustrated in Section 10.11.

Candidates transferring from another institution must meet admission requirements prior to being accepted into the education program at EFSC. Students already enrolled at EFSC do not have to reapply to EFSC, only to the bachelor's program. Procedures for determining a candidate's admission are as follows:

Admission to an educator preparation program is contingent upon meeting the following Department of Education's Teacher Educator Certification requirements:

1. Earn a 2.5 overall GPA;
2. Complete all general education and state mandated common prerequisite courses with a C- or higher in each;
3. Pass all sections of the General Knowledge Test.
4. Complete the Eastern Florida State College Bachelors admissions application.

Note: Students in an AS degree would have to meet all general education requirements and the mandatory state prerequisites. Additional hours would be needed to be admitted to the Biology Teacher program due to higher level math and sciences courses. The AA degree would be the recommended and preferred pathway to this degree.

10.2 What is the estimated percentage of upper division courses in the program that will be taught by faculty with a terminal degree?

Currently the College has a wealth of full-time faculty who meet the needs of the proposed program, but if necessary, faculty will be hired to meet SACSCOC requirements and the teaching standards for the Florida Department of Education. All faculty teaching in this program will have the required doctorate or master's degree in Education, Science Education, or their Science Discipline. More than 25% of the faculty possess a doctorate.

The table below lists the existing full-time faculty who currently are credentialed to teach lower-division and qualify to teach upper-division coursework for the proposed baccalaureate degree in Science Teacher Education, Biology Teacher Education.

Table 10.1

NAME Full time (F) Under Tenure (UT)	ACADEMIC DEGREES & COURSEWORK Relevant to Courses Taught, Including Institution & Major
Chambers, Artie Associate Professor (F) (UT)	DED- Education - Walden University MA- Mass Communications - Towson University MS-Professional Writing - Towson University BS-Radio/Television/Fil – University of Maryland GSH-21 Mass Communications - Towson University GSH-33 Professional Writing - Towson University
Erler, Holly Professor (F) (UT)	EDD-Curriculum and Instruction – University of Central Florida MS-Science Education - Florida Institute of Tec AS-Dental Hygiene - Eastern Florida State College AB1-Elementary Education - Loyola College GSH-15 Communications – University of Central Florida GSH-3 Speech – University of Central Florida GSH-6 Communications- North Dakota State University
McKnight, Holly Professor (F) (UT)	PHD-Science Education - Florida Institute of Technology MS-Educational Leadership - Nova Southeastern University BS-Science Education – University of Central Florida AA-General - Eastern Florida State College AS-Zoology-Santa Fe Community College GSH-18 Educational Leadership - Nova Southeastern GSH-6 Curriculum and Instruction - Nova Southeastern University GSH-3 Biology - California State University Monterey GSH-9 Biology - Florida Institute of Technology GSH-12 Education - Florida Institute of Technology GSH-15 Biology - Florida Atlantic University Harbor Branch Oceanographic Institute
Dutra, Andrew Instructor (F) (UT)	PHD- Science Education - Florida Institute of Technology MS- Marine Science – University of New England BS-Marine Biology – University of Maine GSH-6 Biology - Florida Institute of Technology GSH-12 Biology – U. of New England
Harvey, Roberts Professor (F)(UT)	PHD-Science Education - Florida Institute of Technology MPH-Public Health – University of South Florida BA-Zoology – University of South Florida GSH-9 Physiology – University of South Florida GSH-5 Physiology - Emory University GSH-3 Biology - Florida Institute of Technology GSH-3 Biological Science – University of South Florida
Yount, James Professor (F)(UT)	EDS-Science Education - Florida Institute of Technology PHD-Science Education - Florida Institute of Technology MS- Environmental Science - Florida Institute of Technology BS- Biology - Gannon University GSH-18.66 Biology - Florida Institute of Technology
Iannotti, Donna Associate Professor (F)(UT)	PHD-Chemistry - The University of Akron BS-Animal Science - Cornell University

Knight, Marie Instructor (F)(UT)	PHD-Chemistry - Arizona State University BS-Biochemistry - Colorado State University GSH-9 Physics - Arizona State University
Li, Zhengrong Instructor (F)(UT)	PHD-Chemistry-Texas Tech University MS-Chemistry-New Mexico Highlands University
Petrie, Christopher Professor (F)(UT)	MS-Marine Biology - Nova Southeastern University BS- Marine Biological Sc – University of Alabama AA- General Studies - Valencia College GSH- 3 Environmental Science - Nova Southeastern University GS-3 Bio Sci, Ecology - Nova Southeastern University GSH- 3 Biotechnology - Nova Southeastern University GSH- 4 Epidemiology - Capella University GSH- 3 Physics – University of Central Florida GSH- 3 Pharmacotherapy – University of Minnesota GSH- 18 Oceanography - Nova Southeastern University

- 10.3 What is the anticipated average student/teacher ratio for each of the first three years based on enrollment projections?
25 to one.
- 10.4 What is the anticipated SACSCOC accreditation date, if applicable?
N/A, reaffirmed in 2014; Substantive Change approval expected by Spring 2020.
- 10.5 What is the anticipated Florida Department of Education initial teacher preparation approval date, if applicable?
Spring 2020.
- 10.6 What specialized program accreditation will be sought, if applicable?
None.
- 10.7 What is the anticipated specialized program accreditation date, if applicable?
N / A
- 10.8 Are there similar programs listed in the Common Prerequisites Manual for the CIP code (and track, if any) proposed for this program? Yes No
Under the CIP Code 13.1316 there are five tracks. Those tracks consist of Science Teacher Education (Track 1 of 5) – Biology Teacher Education; Science Teacher Education (Track 2 of 5) – Chemistry Teacher Education; Science Teacher Education (Track 3 of 5) – Earth/Space Teacher Education; Science Teacher Education (Track 4 of 5) – Physics Teacher Education; and Science Teacher Education (Track 5 of 5) – Middle Grades Science Teacher Education. The College will start by offering Track 1, and as more tracks are added the College will adjust the AA degree prerequisites that are required for each track, since they differ slightly for reach.

- 10.9 List the established common prerequisites for this CIP code (and track, if any) as listed in the Common Prerequisites Manual proposed for this program:
Common prerequisites are listed in the table below.

NOTE: Variations exist in each track, so although a course is designated for a track, it may just be an option for that track. Under notes section will designate the courses EFSC will use for Track 1, Biology Teacher. Not all courses are required but are options in various combinations.

Common Prerequisites for all tracks under CIP Code 13.1316, Science Teacher Education

Table 10.2

Course	Course Title	Credits	Notes:	Tracks
EDF 1005	Intro to Teaching Professions	3	Mandatory All	Tracks 1, 2, 3, 4, 5
BSCC 1010	General Biology 1 with Lab	4	Science Ed Biology	Tracks 1, 3, 5
BSCC 1011	General Biology 2 with Lab	4	Science Ed Biology	Tracks 1, 3, 5
CHM 1045	General Chemistry 1 with Lab	4	Science Ed Biology	Tracks 1, 2, 5
CHM 1046	General Chemistry 2 with Lab	4	Science Ed Biology	Tracks 1, 2, 5
PHYC 2053	College Physics 1	4	Science Ed Biology	Tracks 1, 2, 5
MAC 1311	Calculus 1 with Analytic Geometry	5	<i>Due to the addition of Analytic Geometry this is a 5-credit hour course and not 4 credits.</i> Science Ed Biology	Tracks 1, 2, 3, 4
MAC 1312	Calculus 2 with Analytic Geometry	5	<i>Due to the addition of Analytic Geometry this is a 5-credit hour course and not 4 credits.</i>	Required for Track 4 Only; Option for Track 1 if needed.
MAC 1313	Calculus 3 with Analytic Geometry	5	<i>Due to the addition of Analytic Geometry this is a 5-credit hour course and not 4 credits.</i>	Track 4 Only
PHY 2048	General Physics 1 with Lab	4	<i>Will not be suggested for Track 1 since Corequisite MAC 2312 will put students over 60 hrs. for AA Degree.</i>	Tracks 1, 2, 3, 4
PHY 2049	General Physics 2 with Lab	4	<i>This will not be recommended for Track 1, so they have room for CHM 2210 which is a prerequisite for upper division biology coursework.</i>	Tracks 1, 2, 3, 4
OCE 1001	Oceanography	3		Track 3, 5
GLY 1000	Introduction to Physical Geology with Lab	4		Track 3, 5

10.10 Describe any proposed revisions to the established common prerequisites for this CIP (and track, if any).

The common prerequisites for Track 1 will be required for Biology Teacher Education. The Chemistry CHM 1046/L option will be suggested over the Physics PHY 2054/L or higher option due to students needing Organic Chemistry 1, CHM 2210/L for their upper division coursework.

The following prerequisites will not be required, until Tracks 2-5 are added.
MAC 2312 and MAC 2313

Below is the AA Pathway specifically for the Science Teacher (Track 1 of 5) – Biology Teacher Education.

Table 10.3

AA Degree

TERM 1/ Year 1

Course	Course Title	Subject Area	Credits	Notes:
ENC 1101	Composition 1	Gen Ed/ Communication	3	
MAC 1147	Precalculus Algebra/Trigonometry	Gen Ed/ Mathematics	5	
EDF 1005	Introduction to the Teaching Profession	Elective	3	
BSCC 1010	General Biology 1 with Lab	Gen Ed/ Life Science	4	
		Term Total	15	

TERM 2/Year 1

Course	Course Title	Subject Area	Credits	Notes:
ENC 1102	Composition 2	Gen Ed/ Communication	3	
MAC 1311	Calculus 1 with Analytic Geometry	Gen Ed/ Math	5	
CHM 1045	General Chemistry 1 with Lab	Gen Ed/ Physical Science	4	
		Term Total	12	

TERM 3/Year 1

Course	Course Title	Subject Area	Credits	Notes:
	Social Science	Gen Ed/ Social Science	3	
	Behavioral Science	Gen Ed/ Behavioral	3	
		Term Total	6	

TERM 4/Year 2

Course	Course Title	Subject Area	Credits	Notes:
SPC 2608	Fundamentals of Speech	Gen Ed/ Communication	3	
PHYC 2053	College Physics 1	Elective	4	Or Higher
CHM 1046	General Chemistry 2 with Lab	Elective	3	
	Humanities	Gen Ed/Humanities	3	
			13	

TERM 5/Year 2

Course	Course Title	Subject Area	Credits	Notes:
CHM 2210	Organic Chemistry with Lab	Elective	4	
	Humanities	Gen Ed/Humanities	3	
BSCC 2011	General Biology 2	Elective	4	
	Social/ Behavioral	Gen Ed/Social/Behavioral	3	
		Term Total	14	
		AA Degree Total:	60	

10.11 List all courses required once admitted to the baccalaureate program by term, in sequence. For degree programs with concentrations, list courses for each

concentration area. Include credit hours per term, and total credits for the program:

Table 10.4

Term	Course	Credits
First Fall Term	EDG 3214 Human Development and Learning	3
	MCBC 3020 Biology of Microorganisms	5
	ZOOC 1010 Zoology	4
	EDF 2730 Children in Schools Legal, Ethical, Safety Concerns	3
Total		15
First Spring Term	TSL 4324 ESOL Strategies for Content Area Teachers	3
	EDG 3343 Instructional Strategies	3
	PCB 3134 Cell Biology	3
	PBS 3063 Genetics	3
Total		12
First Summer	EEX 4242 Teaching Exceptional Students in Secondary	3
	EDF 4430 Measurement, Evaluation and Assessment	3
Total		6
Second Fall	SCE 3940 Internship	4
	RED 4325 Subject Area Reading	3
	EDG 4410 Classroom Management	3
	ZOOC 4603 - Developmental Biology	5
Total		15
Second Spring	SCE 4943 Seminar in Science Teaching	3
	SCE 4941 Student Teaching in Science	10
Total		13
Grand Total		60

10.12 Is the program being proposed as a limited access program? (If yes, identify admission requirements and indicate enrollment capacity):

Yes No

PROGRAM TERMINATION

11.1 Plan of action if program must be terminated, including teach-out alternatives for students.

If the decision is made to close the Science Teacher Education Program, EFSC will make a good faith effort to assist affected students, faculty, administrative and support staff so that they experience a minimal amount of disruption in the

pursuit of their course of study or professional careers. In all cases, individuals will be notified of the decision to close a program as soon as possible so that they can make appropriate plans. Students who have not completed the programs will be advised by faculty or academic advisors regarding suitable options including transfer to comparable programs. Arrangements will be made to reassign faculty and staff or assist them in locating other employment.

Appendix Table A.1.

INSTRUCTIONS FOR COMPLETING THE DEMAND SECTION OF APPENDIX TABLE A.1.1 and A.1.1.2: To complete the following table, use the [CIP to Standard Occupational Classification \(SOC\) crosswalk](#) of the U.S. Department of Education to identify the SOC codes for occupations associated with the proposed program’s CIP code. Fill in Table A.1.1 using the employment projections data produced by the Florida Department of Economic Opportunity (DEO), pursuant to Section 445.07, F.S., for the workforce region aligned with the college’s service district for each SOC code associated with the proposed program’s CIP code. The employment projections data may be accessed at <http://www.floridajobs.org/labor-market-information/data-center/statistical-programs/employment-projections>. For proposed programs without a listed SOC linkage, identify the appropriate SOC codes for which the program prepares graduates. Insert additional rows as needed. The total job openings column value shall be divided by eight to reflect total annual job openings. The annualized salary shall be calculated by multiplying the average hourly wage times 40, and then multiplying that value times 52. Complete table A.1.1.2 in the same manner as A.1.1 for any additional sources of employment projections. Duplicate Table A.1.1.2 for additional sources as needed.

DEMAND: FLORIDA DEPARTMENT OF ECONOMIC OPPORTUNITY (DEO) EMPLOYMENT PROJECTIONS										
A.1.1	Occupation			Number of Jobs				Salary		Education Level
	Name/Title	SOC Code	County/Region	Base Year 2018	Projected Year 2026	Level Change	Total Job Openings (divided by 8)	Avg. Hourly Wage*	Annualized Salary	
	Middle school Teachers	25-2022	Brevard	751	824	73	64	\$--,---	\$--,---	Bachelor
	Secondary School Teachers	25-2031	Brevard	1238	1359	121	103	\$--,---	\$--,---	Bachelor
								\$--,---	\$--,---	
								\$--,---	\$--,---	
								\$--,---	\$--,---	
							Total	\$--,---	\$--,---	167

*Average hourly wages for both SOC codes are not available through FLDEO.

- The other SOC codes are for Post-Secondary Teachers

INSTRUCTIONS FOR COMPLETING THE ESTIMATES OF UNMET NEED SECTION OF APPENDIX TABLE A.1.3: To complete the following table, column A should be derived from Tables A.1.1 and A.1.1.2 and the totals in columns B and C should be derived from Table A.1.2. Input the figures in the “Total” row in Table A.1.1 and A.1.1.2 for total job openings and Table A.1.2 for most recent year and 5-year average (these figures should be same for all sources). The range of estimated unmet need should be derived from 1) subtracting the figure in column B from the figure in column A and 2) subtracting the figure in column C from the figure in column A. Add rows for additional sources as needed.

ESTIMATES OF UNMET NEED					
A.1.3	DEMAND	SUPPLY		RANGE OF ESTIMATED UNMENT NEED	
	(A)	(B)	(C)	(A-B)	(A-C)
	Total Job Openings (divided by 8)	Most Recent Year	5-year average or average of years available if less than 5 years	Difference	Difference
	DEO	167	18	149	149
	Other: Emsi	178	18	160	160

Appendix Table A.2

INSTRUCTIONS FOR COMPLETING THE PROJECTED BACCALAUREATE PROGRAM ENROLLMENT SECTION OF APPENDIX TABLE A.2: To complete the following table, enter the projected enrollment information for the first four years of program implementation. Unduplicated headcount enrollment refers to the actual number of students enrolled. Full-time equivalent (FTE) refers to the full-time equivalent of student enrollment.

PROJECTED BACCALAUREATE PROGRAM ENROLLMENT		Year 1	Year 2	Year 3	Year 4
A.2.1	Unduplicated headcount enrollment:				
A.2.1.1	Admitted Student Enrollment (First-time)	25	30	50	75
A.2.1.2	Total Admitted Student Enrollment	25	55	85	110
A.2.2	FTE Enrollment:				
A.2.2.1	Program Student Credit Hours (Resident)	600	1320	2040	2640
A.2.2.2	Program Student Credit Hours (Non-resident)	0	0	0	0
A.2.2.3	Total Program Student Credit Hours	600	1320	2040	2640
A.2.2.4	Program FTE (30 credits) - (Resident)	20	44	68	88
A.2.2.5	Program FTE (30 credits) - (Non-resident)	0	0	0	0
A.2.2.6	Total Program FTE	20	44	68	88

INSTRUCTIONS FOR COMPLETING THE PROJECTED DEGREES AND WORKFORCE OUTCOMES SECTION OF APPENDIX TABLE A.2: To complete the following table, enter the projected number of degrees awarded, the projected number of graduates employed and the projected average starting salary for program graduates for the first four years of program implementation.

PROJECTED DEGREES AND WORKFORCE OUTCOMES		Year 1	Year 2	Year 3	Year 4
A.2.3	Degrees	<u>0</u>	<u>20</u>	<u>50</u>	<u>75</u>
A.2.4	Number Employed	<u></u>	<u>20</u>	<u>40</u>	<u>70</u>
A.2.5	Average Starting Salary	<u>\$--</u>	<u>\$39,226</u>	<u>\$39,226</u>	<u>\$39,226</u>

INSTRUCTIONS FOR COMPLETING THE REVENUES AND EXPENDITURES SECTION OF APPENDIX TABLE A.2: To complete the following table, enter the projected program expenditures and revenue sources for the first four years of program implementation.

REVENUES AND EXPENDITURES				
I. PROJECTED PROGRAM EXPENDITURES	Year 1	Year 2	Year 3	Year 4
INSTRUCTIONAL				
1. Faculty Full-Time FTE	1.0	1.0	1.0	1.0
2. Faculty Part-Time FTE	0.5	0.5	0.5	0.5
1. Faculty Full-Time Salaries/Benefits	57,884	57,884	57,884	57,884
2. Faculty Part-Time Salaries/Benefits	3,586	3,586	3,586	3,586
3. Faculty Support: Lab Assistants	0	0	0	0
OPERATING EXPENSES				
1. Academic Administration	5,000	5,000	5,000	5,000
2. Materials/Supplies	0	0	0	0
3. Travel	0	0	0	0
4. Communication/Technology	0	0	0	0
5. Library Support	0	0	0	0
6. Student Services Support	18,301	18,301	18,301	18,301
7. Professional Services	0	0	0	0
8. Accreditation	0	0	0	0
9. Support Services	0	0	0	0

CAPITAL OUTLAY	Year 1	Year 2	Year 3	Year 4
1. Library Resources	0	0	0	0
2. Information Technology Equipment	0	0	0	0
3. Other Equipment	0	0	0	0
4. Facilities/Renovation	0	0	0	0
TOTAL PROJECTED PROGRAM EXPENDITURES	\$84,771	\$86,331	\$88,185	\$89,876
II. NATURE OF EXPENDITURES	Year 1	Year 2	Year 3	Year 4
1. Recurring	84,771	86,331	88,185	89,876
2. Nonrecurring	0	0	0	0
TOTAL	\$84,771	\$86,331	\$88,185	\$89,876
III. SOURCES OF FUNDS	Year 1	Year 2	Year 3	Year 4
A. REVENUE				
1. Special State Nonrecurring	0	0	0	0
2. Upper Level - Resident Student Tuition Only	55,074	121,163	187,252	242,325
Upper Level - Nonresident Student Fees Only	0	0	0	0
Upper Level - Other Student Fees	0	0	0	0
3. Contributions or Matching Grants	0	0	0	0
4. Other Grants or Revenues	0	0	0	0
5. Florida College System Program Funds	29,697	0	0	0
6. Unrestricted Fund Balance	0	0	0	0
7. Interest Earnings	0	0	0	0
8. Auxiliary Services	0	0	0	0
9. Federal Funds – Other	0	0	0	0
B. CARRY FORWARD	0	0	0	0
TOTAL FUNDS AVAILABLE	\$84,771	\$121,163	\$187,252	\$242,325
TOTAL UNEXPENDED FUNDS (CARRY FORWARD)	\$0	\$34,832	\$99,067	\$152,449

Supplemental Materials B.1

SUPPLEMENTAL MATERIALS

- B.1 Summarize any supporting documents included with the proposal, such as meeting minutes, survey results, letters of support, and other supporting artifacts.

Included with this application are letters of support from BPS that outline support and plans to develop partnerships to enhance teacher preparation pipeline within the Brevard County. The first letter of support is from the Superintendent of Brevard Public Schools, Dr. Mark Mullins. The second letter of support is from the Deputy Superintendent, Chief HR Officer, Dr. Beth Thedy. The third letter of support is from State Senator Tom Wright. See Appendix B.1.a for letters of support.

As noted in section 4, the College has worked closely with BPS) to enhance the teacher preparation pipeline. During the past few years, numerous meetings were held with BPS to develop a teaching academy, expand program options at EFSC, and ultimately to develop a bachelor program to address the needs of the public school system in Brevard County. Appendix B.1.b contains meeting minutes related to various meetings with BPS to address the Teacher shortage.

- B.2 List any objections or alternative proposal received from other postsecondary institutions for this program.

No objections or alternative proposals have been received.

Appendix B.1.a Letters of Support



THE FLORIDA SENATE

Tallahassee, Florida 32399-1100

COMMITTEES:
Military and Veterans Affairs and Space, Chair
Children, Families, and Elder Affairs
Commerce and Tourism
Environment and Natural Resources

JOINT COMMITTEE:
Joint Administrative Procedures Committee

SENATOR TOM A. WRIGHT
14th District

October 18, 2019

Dr. Kathy Hebda
Chancellor Division of the Florida College System
325 West Gaines Street, Suite 1544
Tallahassee, Florida 32399-0400
ChancellorFCS@fldoe.org

Please accept this letter of support for Eastern Florida State College's request to offer a 4 year teaching degree.

The Bachelor of Science in Science education degree proposed by Eastern Florida State College is designed to provide the Space Coast workforce with a highly skilled applicant pool to fulfill job demands in the area of education and to provide an affordable opportunity for students completing either an Associate in Science in Education Technology Assistant or an Associate in Arts degree to seamlessly continue and complete a baccalaureate degree in Science Education.

The Florida Department of Economic Opportunity (FLDEO) projects an increase for both middle and secondary school teachers of close to 10% between 2018 and 2026, with 167 annual openings.

Brevard County consists of 84 traditional schools and 13 charter schools.

As of August 7, 2019, BPS had 46 instructional positions open for the 2019-2020 school years. Many of the positions have been re-advertised given the lack of qualified candidates applying for these position per Beth Thedy, Chief HR officer, Brevard Public Schools.

Brevard Public Schools is faced with severe challenges to provide our student the highest quality teachers to help them be best equipped and prepared for success after graduation according to Mark Mullins, Superintendent Brevard Public Schools.

Brevard Public Schools can no longer solely rely on internships from other colleges or universities since our number of college interns have decreased by nearly 70% over the past five years according to Mark Mullins, Superintendent Brevard Public Schools.

Thank you for your consideration.

Regards,

A handwritten signature in blue ink that reads "Tom A. Wright".

Tom A. Wright
State Senator, District 14

RECEIVED

OCT 21 2019

REPLY TO:

- ☐ 4606 Clyde Morris Blvd., Suite 2-J, Port Orange, Florida 32129 (386) 304-7630
- ☐ 312 Senate Building, 404 South Monroe Street, Tallahassee, Florida 32399-1100 (850) 487-5014

Senate's Website: www.flsenate.gov

BILL GALVANO
President of the Senate

DAVID SIMMONS
President Pro Tempore



UNIVERSITY OF CENTRAL FLORIDA

UCF Connect

12201 Research Parkway, Suite 101
Orlando, FL 32826

November 18, 2019

RE: Support for Eastern Florida State College's proposed Bachelor of Science in Education

On behalf of the University of Central Florida (UCF) and the Central Florida Higher Education Consortium including representation from College of Central Florida, Daytona State College, Eastern Florida State College, Lake-Sumter State College, Seminole State College, Valencia College, and UCF, I am writing this letter to support the Bachelor of Science in Education being proposed by Eastern Florida State College.

In 2005, the Central Florida Higher Education Consortium was formed to guarantee students graduating with an Associate of Arts, as well as selected Associate of Science degrees, from Consortium member institutions admission to the University of Central Florida. The Consortium operates within the guidelines of a Regional Operational Plan. With this agreement, Consortium member institutions agree to conduct a collaborative review of new baccalaureate degrees being proposed by any of the six state college members. This review process involves a regional workforce supply-demand gap analysis, and an extensive review of data shared among the chief academic officers of each member institution.

The Consortium members believe that this review process is thorough, and it is consistent with the members' shared goals of meeting local and regional workforce demands without unnecessary duplication of degree programs.

Therefore, I add my support to this proposed Bachelor of Science degree in Education for Eastern Florida State College.

Sincerely,

A handwritten signature in blue ink that reads "J. Jeffrey Jones".

J. Jeffrey Jones, Ph.D.
Vice Provost
UCF Connect

CC: Provost Elizabeth Dooley

Phone: 407.823.1582 • Fax: 407.823.1399 • Web: connect.ucf.edu

School Board of Brevard County

2700 Judge Fran Jamieson Way • Viera, FL 32940-6601

Mark W. Mullins, Ed.D., Superintendent



December 19, 2019

To Whom It May Concern,

I am writing in full support of Eastern Florida State College's (EFSC) request to add a four-year secondary science teacher preparation program to its course selection. Brevard County consists of 27 traditional secondary schools and 6 charter schools that include middle and/or high school grade levels. Given today's significant science teacher shortage, Brevard Public Schools (BPS) is faced with severe challenges to provide our students the highest quality teachers to help them be best equipped and prepared for success after graduation. Like many districts across the state, we have several secondary science teacher positions currently unfilled, some of which have been unfilled for the entire school year.

Our school board and superintendent have worked diligently to create a pipeline for BPS graduates in which they can attend EFSC, complete required internships in our schools, and be eligible for hire upon graduation. We are expanding our two high school Teacher Preparation Academies and encourage EFSC education students to become instructional assistants in our district while they complete their bachelor's degree. In addition, secondary science teacher candidates can partner with our district's strong science research programs, working as mentors with middle and high school students and teachers. This will enable secondary science teacher candidates to build relationships with BPS science programs while they are working towards their degrees.

I have found that secondary science teachers who complete an education degree enter the classroom better prepared to take on the challenges of classroom management and hands on lab experiences compared to their colleagues who enter the profession in an alternative certification program. While our alternative certification candidates often rise to the occasion, the teachers with secondary science education degrees walk into the classroom more prepared and encounter less stress during their first year of teaching, increasing their desire to continue their career in Brevard Public Schools.

Brevard Public Schools can no longer solely rely on internships from other colleges or universities since our number of college interns have decreased by nearly 70% over the past five years. Allowing EFSC to add a four-year secondary science teacher preparation program will allow greater access for our students to pursue a degree in science education by keeping tuition and living expenses down.

Sincerely,

A handwritten signature in blue ink that reads "Loren Marie Kerschensteiner".

Loren Marie Kerschensteiner
Secondary Science Resource Teacher
Brevard Public Schools
2700 Judge Fran Jamieson Way
Viera, FL 32940

Secondary Leading & Learning
Phone: (321) 633-1000 • FAX: (321) 633-3447



An Equal Opportunity Employer

School Board of Brevard County

2700 Judge Fran Jamieson Way • Viera, FL 32940-6601

Mark W. Mullins, Ed.D., Superintendent



August 12, 2019

To Whom It May Concern,

I am writing in full support of Eastern Florida State College's (EFSC) request to add a four-year teacher preparation program to its course selection. Brevard County consists of 84 traditional schools and 13 charter schools. Given today's significant teacher shortage, Brevard Public Schools (BPS) is faced with severe challenges to provide our students the highest quality teachers to help them be best equipped and prepared for success after graduation. Like most districts across the state, we have many instructional openings still unfilled for the start of the school year. This number does not include additional teachers that will likely be needed after students arrive and principals verify their student enrollment.

Both I and our school board are fully committed to a robust and progressive partnership with EFSC for developing a high quality experience for prospective teacher candidates that begins with investment in our own school system. We have developed teacher preparation pipelines or Teacher Preparation Academies at two of our high schools. These academies were designed to foster a passion for education within our current students, create a sustainable teacher pipeline given that our students already have connections to Brevard County and encourage our students to become Instructional Assistants within our district while they complete their bachelor's degree. Monthly planning meetings, consisting of individuals from both BPS and EFSC, took place last year in order to provide a clear focus and direction for our teacher preparatory academies and articulation agreements were constructed to provide our students college credit for their work.

We are poised and prepared to work with EFSC to provide senior internship placement to as many candidates that EFSC's program can provide. We have internal support and capacity to expand Continuing Education for Teachers (CET) endorsements. Our ultimate goal is to provide direct access to a formal undergraduate teacher preparation program at EFSC. I have pledged my full support to EFSC to make our partnership and teacher preparation pipeline a statewide model.

Brevard Public Schools can no longer solely rely on internships from other colleges or universities since our number of college interns have decreased by nearly 70% over the past five years. Allowing EFSC to add a four-year teacher preparation program will allow greater access for our students to pursue a degree in education by keeping tuition and living expenses down.

While working collaboratively with EFSC, we hope to end the teacher shortage crisis in Brevard, provide high quality candidates statewide and become a model for other K-12 public school systems and post-secondary institutions. Therefore, it is without reservation that I provide my absolute support and strongly encourage you to give them your highest consideration.

Sincerely,

Mark W. Mullins, Ed.D.
Superintendent

Phone: (321) 633-1000, ext. 11402 • FAX: (321) 633-3432



An Equal Opportunity Employer

School Board of Brevard County

2700 Judge Fran Jamieson Way • Viera, FL 32940-6601
Mark W. Mullins, Ed.D., Superintendent



August 7, 2019

To Whom It May Concern:

It is my pleasure to write a letter of support for Eastern Florida State College to receive approval to establish a Bachelor of Education program. Brevard Public Schools currently has a strong partnership with EFSC with hundreds of our students taking advantage of either Dual Enrollment Courses or programs that assist our students in earning industry credentials.

As of August 7, 2019, BPS has 46 instructional positions open for the upcoming school year. Many of the positions have been re-advertised given the lack of qualified candidates applying for these positions. These positions do not encompass the additional teacher vacancies that will post after the students arrive to school on August 12 when principals add new staff members to meet state class size requirements.

Unfortunately, finding qualified teachers to meet the growing needs of our district has been a consistent challenge. BPS strongly believes that allowing EFSC to establish a new Bachelor of Education program will assist our district in creating a more sustainable pipeline for new teachers within our district. Although the greatest number of new teachers in our county are graduates from University of Central Florida, the number of college interns have dramatically declined in recent years due to the increasing demand for teachers within central Florida. Over the course of the last five years, the number of college interns working within BPS has dropped from 150 to 49.

Brevard Public Schools is also working closely with EFSC to help develop a "grow your own" program where our current instructional assistants can start working towards earning their bachelor's degree in order to become classroom teachers. Providing our current IAs the opportunity to continue their course work at EFSC would assist them financially by reducing tuition and travel expenses. EFSC has also demonstrated a desire to provide the needed flexibility when courses will be provided to allow for our IAs to continue their work within our schools while they complete their courses.

In closing, I believe allowing EFSC to offer a Bachelor of Education to our local students and employees would greatly assist us in meeting our current need for talented teachers who are committed to the success of our schools and community.

Sincerely,

Beth Thedy, Ed.D.
Deputy Superintendent/Chief HR Officer

Elizabeth G. Thedy, Ed.D.
Deputy Superintendent/Chief Human Resources Officer
Phone: (321) 633-1000, ext. 200 • FAX: (321) 633-3525



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Appendix B.1.b Meeting Minutes and Agendas

**Bayside High School Teaching Academy
Advisory Board Meeting Minutes
January 24, 2019
4:00 – 5:30 pm**



Agenda and Action Plan: Academies to Increase BPS Future Teachers!

Agenda Item	Who	Action Plan Follow Up
Welcome, Introductions, Agenda, Sign in Sheet and Meeting Minutes	Jenny	7 members in attendance;
New Bayside HS Teacher Academy Fall 2019/Binder Package for Students	All	Make sure both principals are on board with teaching academies and what will happen in Fall of 2019; Students who will need to be placed in courses for upcoming school year (Fall 2019).
CTE Curriculum for our Teaching Academies	Jenny/Judy	Discussed how many teaching sections we will need for those teachers teaching the courses; 25 students currently in SCHS teaching academy; Looking at adding electives/possible leadership class to curriculum along with Dual Enrollment courses as an option for students who qualify with GPA/PERT.
Textbooks and Workbooks for Teaching Academies	Jenny/Judy	Melanie will check with John Small @ BHS to make sure textbooks are on hand. Judy will check to see that she has textbooks needed for courses @ SCHS.
CPI Certified Training Program for Educators	Dawna	Exceptional Education Department offers this for Brevard Teachers -Need both teachers to be CPI certified; integrate information in Human Growth and Development high school course.
Universal Classroom Design/Back to Back Classroom (Lab with Classroom)	Melanie/Jenny	Melanie will let BHS principal know that Jenny would like to do a walk-through with her and to see which classrooms will be set aside for BHS Teaching Academy.
Establish Dual Enrollment courses with EFSC	Holly	Holly will work on putting together Advance Standing Agreement with BPS for Teaching Academy DE courses, it is possible that students can take bus to EFSC during 3 rd and 4 th period to earn DE credits; Adding an addendum to PERT and/or GPA scores for those that may chose not to take/qualify for DE courses at EFSC and take high school course on campus.
The NEED FOR TEACHERS IN BREVARD COUNTY IS TREMENDOUS!		

Industry Certification: Adding an additional certification to the Teaching Academy in senior year	Mike/Lynnette/Jenny	Keeping Parapro as an assessment for IA position in future; look at the possibility to add General Knowledge as a test in senior year (Are other counties in FL using the test in their teaching programs?)
Articulation Agreement with UCF	Nancy	Direct Connect- EFSC to UCF; Check with Vicki Huffman about students earning CDA in Teaching Academy.
Agreement to hire our Teaching Academy completers who hold their 4 yr. Degree in Education	Mike/Lynnette	This is something that was discussed; Dr. Soliven is aware and we will discuss with her as we move forward.
Internships with our local schools	Judy/Melanie	Students need volunteer for Dual Enrollment courses; students need hours within the Teaching Academy/Program itself-last course; Westside Elementary is within walking distance of BHS; Enterprise is within walking distance of SCHS; each school would send students there possibly on Friday's in leu of the 3 rd and 4 th periods on Friday since EFSC is closed. Shadowing ESE classes should be included. Biggest concern is student transportation for volunteering hours.
Suggested Meeting Dates/Location/Times: February 21st, March 14th, April 18th, May 16th	All	UPDATED: FEBRUARY 21ST NEXT MEETING; THEN MARCH 28TH, APRIL 25TH, AND MAY 16TH SAME TIME: 4-5:30PM SAME ROOM: ESF POD 3 ROOM 302N
Questions, Concerns, Issues	All	

Objective L1: Develop programs and procedures that support equitable access, for all students, to high quality curriculum and instruction.
Objective L2: Support educator effectiveness and build capacity of teachers to improve student outcomes and close achievement gaps.



Bayside High School Teaching Academy
Advisory Board Meeting
February 21st, 2019
4:00 – 5:30 pm



Agenda and Action Plan: Academies to Increase BPS Future Teachers!

Agenda Item	Who	Action Plan Follow Up
Welcome, Introductions, Agenda, Sign in Sheet and Meeting Minutes	Jenny	Introductions: Lynn Demetriades from EFSC and Francine Drabik from SCHS; Sign-in Sheet complete; 7 members in attendance; Dr. Miedema and Lynette Thorstensen absent.
Textbook Updates: BHS and SCHS	Jenny/Francine	Teaching textbooks that were originally at BHS have been DCR'd per John Small. SCHS currently uses the Teaching book but did not purchase workbooks (might be interested in purchasing workbooks if they are able to use them for the academy). SCHS also needs to purchase more Teaching books; not enough for each student. I will discuss with Janice where the funds will come from to purchase textbooks for Bayside for year one and if we need to purchase workbooks for SCHS. Francine has old Teaching textbooks in class and does not mind sharing with BHS to get started for first year if there are no funds available.
CPI Certified Training Program-Knowledge for students	Jenny	CPI Certified- BHS and SCHS teachers to obtain certification (Mike Alba mentioned training can be done for the teachers at the school). There is still no teacher hired for the teaching academy; John Small mentioned that the position has been posted.
Teaching Academy Classrooms identified @BHS; Discussion with John Small- Facilities AP	Jenny	Completed a walk-through at BHS with John Small; Identified 740 & 746 for Teaching Academy classroom/lab; part of the wall will need to be knocked down to place a door for conjoining rooms. Rooms are adjacent from one another in two separate hallways.
ParaPro and General Knowledge Test	Jenny	Waiting to hear from FLDOE to see which high school offers General Knowledge Test for seniors. Holly mentioned that Scott Wise offers test camp online for students who need help with any of following: ParaPro/GK/ElemEd/ProfEd (Holly has emailed this information to me) It is a 30-day free trial.

Universal Classroom Design: purchasing furniture needs, etc.	Jenny/Melanie	Discussed the furniture/tech needs for the Teacher Academy lab; will follow up with Dawna B. on March 4 th and with Meteor vendor to develop layout for teaching lab. SCHS has a LAUNCH room, but does not have room for a lab next to teaching classroom.
Dual Enrollment course/s with EFSC: What courses can we offer and at what times?	Holly/ Dr. Miedema/ Lynn D.	EFSC will offer high school students in teaching academy CCC; students will need 2.5 GPA to enroll, will need to complete 5 classes for CCC. Students will be able to continue at EFSC towards an AS Degree in Educational Technology. We discussed whether this is better for our seniors in the academy due to taking 2 courses each semester and a single course in the summer of their junior year to complete by their senior year. Courses are set up to complete portfolios and obtain volunteer hours at elementary, middle and high school levels.
Prepare Binder Package for Students before April	Jenny	Need to create a brochure for BHS to be completed by April; SCHS already has one for their academy, Francine will share with Melanie and Jenny; We will look to update this next meeting and complete it with new information for both schools.
Suggested Meeting Dates/Location/Times: March 28th, April 25th, May 16th	All	Next meeting is March 28 th , 2019
Questions, Concerns, Issues	All	Nancy- UCF Knighted Talks Showcase/Future Teacher Conference is April 5 th ; SCHS and BHS are both planning to attending; Please email Jenny if you need link for high school students. Nancy mentioned if there are any perks for students who graduate from teaching academy that we can add: Adding Endorsements? Fingerprinting? Are we offering students who graduate from teaching academy a job after they complete their degree or if we can hire them as an IA?

Objective L1: Develop programs and procedures that support equitable access, for all students, to high quality curriculum and instruction.

Objective L2: Support educator effectiveness and build capacity of teachers to improve student outcomes and close achievement gaps.



Bayside High School Teaching Academy
Advisory Board Meeting
March 28th, 2019
4:00 – 5:30 pm



Agenda and Action Plan: Academies to Increase BPS Future Teachers!

Agenda Item	Who	Action Plan Follow Up
Welcome, Introductions, Agenda, Sign in Sheet and Meeting Minutes	Jenny	7 Members in attendance; Introductions-Greg Rubick, BHS Curriculum AP
Textbook Update for: BHS and SCHS	Jenny/Francine	Intro to Teaching Professions (CTE course) is on the approval list for book adoption for this coming school year; Waiting to hear back from Janice on what books are listed and when we can order those books. Francine (SCHS) may be able to get additional books needed for next year. SCHS does not have money for books right now. In order to prepare BHS students for the Fall of 2019, Francine has 1 st edition Teaching books that she is willing to share at SCHS, unless we can adopt Teaching books recommended on list. Suggestion for supplemental books include: The First Days of School and Classroom Instruction that Works, etc. Lynnette has teaching books/DVDs that she is willing to give to SCHS and at least one copy of each to BHS.
Teaching Academy Lab update	Jenny	I'll be working with Michelle Patterson (FDLRS) on Monday April 1 st to discuss necessary layout/furniture for classroom and discuss furniture vendors who can supply these items: Ernie Morris, Meteor, NorvaNivel, etc. I will obtain a quote for furniture; however, we will be placing quote on hold until further notice. We will also put the lab renovation on hold until we have enough student interest in the Teaching program.
General Knowledge Test	Jenny	I reached out to FLDOE to find out if anyone is giving GK Test in high school level. GK Test is on the list of certifications, along with ParaPro, however, there's no funding for it. The source of funding is a big concern for this test. Lynnette stated that they have dropped the price for the GK Test; she will contact Scott Wise (TTC Education)-Test Camp to see if we can get a price reduction to purchase

		this for our Teach Academy students; will look into taking one section of the GK test at a time (Math only) if possible, for seniors.
Teacher for BHS Teaching Academy (Re-Advertised)	All	No teacher yet for BHS. Re-Advertised position listed as Cert in Any Area/Master's degree /ESE Cert preferred. Greg mentioned that they have resumes and will be interviewing in a couple weeks; Lynnette offered to sit in on the interviewing process if needed at BHS (possibly Barbara Davis as well).
EFSC courses/ParaPro content	Holly/ Lynn D.	Discussed CCC and Advanced Standing Agreement- Requested if EFSC will award the Intro to Teaching-3 credit course to seniors who pass and complete all CTE courses in Teaching Program and pass the ParaPro with 464 or higher. It was approved, but we will wait for final documents from EFSC. Discussed courses for Teaching Academy and what SCHS does with their juniors (interning with teachers on campus) and seniors (those going off campus to intern at 3 different elementary schools). Francine shared her field experience form that seniors must provide to the elementary schools to confirm their attendance; students reflect on each of their visits as an assignment.
Creating Binder/Brochure for both schools: Adding updated information/suggestions	All	Looked at current brochure for SCHS ATEPS; Took ideas from the brochure but will need to come up with a Teaching Academy name and will have Carrie at BHS help design a logo and Melanie to gather some FEA pictures to add to the BHS brochure. We would like to have the brochure complete to hand out to students before April 18 th (6-8pm) for BHS incoming 9 th grade night. Will work with Francine/Judy on updating SCHS ATEPS brochure to include new Teaching Academy information.
Suggested Meeting Dates/Location/Times: April 25th, May 16th	All	All agreed to meeting on April 25 th
Knight ED Talks: April 5th, 2019; Brevard students attending	Nancy/Melanie/ Francine	Nancy was not in attendance but did email me that the faculty has prepared an exciting day for the students including a tour of the campus, a keynote speech and a series of breakout sessions. Francine has about 30 students attending on Friday, April 5 th .
Questions, Concerns, Issues	All	None/Advisory Board Meeting Dismissed

Objective L1: Develop programs and procedures that support equitable access, for all students, to high quality curriculum and instruction.
Objective L2: Support educator effectiveness and build capacity of teachers to improve student outcomes and close achievement gaps.

Bayside High School Teaching Academy
Advisory Board Meeting
April 25th, 2019
4:00 – 5:30 pm



Agenda and Action Plan

Agenda Item	Who	Action Plan Follow Up
Welcome, Agenda, Introductions, Sign in Sheet and Meeting Minutes	Jenny	5 members in attendance. Mike Alba, Holly McKnight, Melanie Boswell, and Francine Drabik were not in attendance. Introduction to our newest member, who is the Teacher Coordinator/Teacher of the BITE Academy at BHS, Jennifer Laham.
Textbook Adoption (Update on dates): BHS and SCHS	Jenny/Judy	Textbooks from SCHS will be given to BHS to begin the year. Textbook adoption will take place sometime in the Fall. We currently do not have a list of what books will be up for adoption, however, the publishers are supposed to come up with a final list by July 12 th . FACTE is the following week, which many publishing companies typically there at the conference. Judy mentioned there is a Teaching book from Goodheart-Wilcox that we might be interested in; Chris Simmons is our local rep for GH-Wilcox, I can reach out to him to see if he can send a copy of the book to each school. There is a brand-new edition of Harry Wong, Lynnette might be able to donate some of the Harry Wong books to the schools since Prof. Development is now using Champs. Dawna Bobersky might have a class set of books to share with the schools as well.
Teaching Academy Lab -Perkins Request for furniture	Jenny	The plan moving forward on the furniture at BHS is to get a few quotes, have one of our vendors come out to the school, over the summer and give us an idea of what furniture we need for the space we have in room 740, still focusing on the Universal Classroom Design. Met with Michelle Patterson and Patty Adams with FDLRS to discuss the ideas for furniture in the lab at BHS. They shared some vendors and mentioned that South Lake Elementary utilizes the modern classroom design on campus and gave me some tips on what we need in the classroom.

		Lynnette recommended visiting PBHS Fashion Lab for some ideas. Recommendations: variety of seating options for collaboration, shelving at different levels, independent areas/tablets for teaching, horseshoe for small groups, one table that is height adjustable, shorter bookcases, rocker boards/TheraBand's, table with dry erase board.
Updates on General Knowledge Test/ Test Camp for Students	Lynnette	Scott Wise said he is going to set up a link for students to do Pretests in Test Camp for the General Knowledge Test. Lynnette is on board to find out more information regarding the ParaPro and/or General Knowledge being placed on the CAPE Funded list. She has been reaching out to Career Source for more information on this.
Teacher for BHS Teaching Academy/BHS Teaching Academy Flyer/Incoming 9th grade night	Greg/Jenny	Shared the new BHS Teaching Academy flyer created by Carrie Robertson at BHS (many thanks to her for taking the time to do this), noted if there are any updates we need to address-one is the advance standing agreement with EFSC. Bayside is going to have an application process for the BITE Academy. SCHS already has one in place for ATEPS. Judy is on board for changing the brochure to add the updates to the teaching academy as well as having Carrie help design their brochure.
EFSC articulation agreement for Teaching	Holly	The Advance Standing Credit agreement is almost done, we are waiting on signatures by the appropriate people. We can discuss the agreement at our next meeting.
Binders for 2019 school year for each program/ SCHS needs updated brochure/flyer	All	Please send me anything you'd like to add for the Teaching Academy Binder for each school; this will include courses for program, hours required, school internships, any forms required for students, applications into the program, field trips, events, CTSO-FEA, etc., ParaPro exam information, Dual Enrollment, UCF/EFSC Bachelors Program. SCHS ATEPS Academy will share some of their documents they have created with BHS new BITE Academy.
Suggested Meeting Dates/Location/Times: May 16th will be our last meeting for the school year	All	All agree to meet on Thursday, May 16 th for final meeting before the end of the school year.
Discuss the outcome of students attending Knight ED Talks on April 5th, 2019	Nancy/Judy	Shared information from Francine's email regarding the Knight ED Talks-she mentioned that students were able to attend several mini-sessions where they learned about teaching strategies, students were also given a campus tour, and they will likely return next

		<p>year. Once suggestion is to have an earlier registration for students while having the event take place earlier in the year. Judy mentioned on June 3rd there is a consortium at UCF for Future Educators, this is for district leaders, lead teachers, admin teams, and post-secondary education supporters and is free to attend.</p> <p>https://www.eventbrite.com/e/consortium-for-future-educators-at-ucf-summer-2019-registration-60528954733. I have included the link to register if you are interested</p>
Questions, Concerns, Issues	All	None, Meeting Adjourned.

Objective L1: Develop programs and procedures that support equitable access, for all students, to high quality curriculum and instruction.

Objective L2: Support educator effectiveness and build capacity of teachers to improve student outcomes and close achievement gaps.



BS Education

Phone Conference Saint Pete College of Education

June 26th 2017, 11:15 a.m.

Bldg. 1 Office of Associate Provost, Melbourne Campus

Attendance

Dr. Kimberly Hartman, AP Ray Roberts, and Dr. McKnight

Purpose: To learn how St Pete runs their BS in Education, their enrollments in each program, how they implemented their program, and what other State Colleges are offering these programs.

Current College of Education Programs at SPC (Total Enrollment 689)

- Biology 7-12 – Enrollment 3
- Middle School Secondary Math – Enrollment 16
- Middle School Secondary Science – Enrollment 4
- Elementary Education – Enrollment 150
- This Fall starting their first fully online Education degree program
- It is a 2-3 year process to get program.

Elementary Education

- They are one of four Centers of Excellence in Education Centers in Education.
- Using grant money they were able to revamp Elementary Education Curriculum.
 - Added 9 hours of content courses for Bachelorette level.
 - 3 hrs. Math, 3 hrs. Science, 3 hrs. Social Studies
 - 23% increase in test scores in Subject Area Exams since adding above 9 hrs.
 - 2 classes in ESOL with the 5 Reading Competencies.
 - 12 hrs. Reading, 9 hrs. Content, 6 hrs. ESOL.
- Need a terminal degree to teach all course in Elementary Ed, except the Content areas and Education Foundation courses K-12.

Secondary Education

- Biology and Math not offered as a BS degree so all upper division courses were written for Education Department.
- This keeps it cleaner and neater.
- Need a terminal degree to teach.

GKT (General Knowledge Test)

- Students struggle to pass.
- Money spent to pay faculty to take GKT to see what it encompasses to better prepare students.
- Math and writing hold reviews for students to come on their own time. 75+ show up for these reviews.
- Reading Teachers hold reviews

Articulation Agreement

- State Requirement of 2.5 GPA, Intro to Ed, GKT, and Criminal Background check

- Complete BS online at SPC and Field Experience done in Brevard County.



Current College of Education Programs at Saint Pete College (Total Enrollment 689)

- Biology 7-12 – Enrollment 3
- Middle School Secondary Math – Enrollment 16
- Middle School Secondary Science – Enrollment 4
- Elementary Education – Enrollment 150
- This Fall starting their first fully online Education degree program
- It is a 2-3 year process to get program.

All upper division biology and math courses were written for Education Department.

Current College of Education Programs at Daytona State College

- Bachelor of Science in Education - Elementary Education – Enrollment 80
- Bachelor of Science in Education - Exceptional Education – Enrollment 17
- Bachelor of Science in Education - Secondary Biology Education – Enrollment 4
- Bachelor of Science in Education - Secondary Chemistry Education – Enrollment 3
- Bachelor of Science in Education -Secondary Earth/Space Science Education – Enrollment 3
- Bachelor of Science in Education - Secondary Mathematics Education – Enrollment 9
- Bachelor of Science in Education - Secondary Physics Education – Enrollment 3

Foundations courses shared; strict – not a lot of options – partnership with Math and Science Depts.

Current College of Education Programs offered at Indian River State College

- Elementary Ed Curriculum – Enrollment
- ESE w/ESOL Curriculum – Enrollment
- Middle Grades Math Curriculum – Enrollment
- Middle Grades Science Curriculum – Enrollment
- Secondary Biology Curriculum – Enrollment
- Secondary Math Curriculum – Enrollment

Current College of Education Programs offered at Broward College

- Exceptional Student Education – Enrollment
- Middle Grades General Science – Enrollment
- Middle Grades Mathematics – Enrollment
- Secondary Biology – Enrollment
- Secondary Mathematics – Enrollment

Brevard Public Schools Teachers Resignations/Retirements/Expired Contracts

<u>Year</u>	<u>Teachers Lost</u>
• 2017	628
• 2016	631
• 2015	549
• 2014	377

State Articulation Agreements from State College to Universities

- State Requirement of 2.5 GPA, Intro to Ed, GKT, and Criminal Background check
- Complete BS online at SPC and Field Experience done in Brevard County.



Educator Preparation Institute (EPI)

January 30, 2018

Indian River State College

Meeting called by:	Dr. Holly McKnight
Type of meeting:	Fact finding mission to see how IRSC incorporates EPI into their college of Education
Attendees:	Kimberly Greene, Cressa Zajac, Joey Lord, and Dr. Holly McKnight

1. EPI Overview

- IRSC incorporates EPI into their existing Education program by using 8 courses to meet the needs of EPI Modules.
- Successful completion of the following courses is needed:
 - **EDF 2005 Intro to the Teaching Profession**
 - **EDF 2085 Diversity**
 - **EME 2040 Introduction to Technology for Educators**
 - **EDF 3214 Human Development**
 - **EDG 3343 Instructional Strategies**
 - **EDG 3949 Practicum (30 hours in classroom of grade/subject intended to teach)**
 - **EDG 4410 Classroom Management**
 - **RED 3360 Teaching Reading**

2. Certificate Checklist:

- EPI Student Data Sheet
- Statement of Status of Eligibility and /or Temporary Certificate
- Fingerprinting
- Completion of the 8 courses above
- 2.5 cumulative GPA in EPI components/Bachelor's degree GPA
- Successful completion of portfolio
- Complete an IRSC EPI Certification Application
- Passing scores on the FTCE Scores
 - General Knowledge Test
 - Subject Area Test
 - Professional Education Test

3. Old Vs. New

- In the past they did not incorporate the Education Department into EPI

- Problems with not having involvement in education department:
 - Hard to find teachers who want to teach all weekend.
 - Not enough students to fill classes.
- Pro's
 - No additional instructors needed.
 - EPI students add to enrollment of education classes.
 - No more cohorts.

4. Difficulties with EPI:

- Losing students to temporary certificates is a problem.
- If school board hires the student, they can receive a temporary certificate, which allows them to work and be in the school board's professional development program.
- Once hired by school board the student receives the following amenities:
 - Temporary Certificate
 - 3 Exams
 - Teach 1 Year
 - Profession education program by district.

5. How EPI works between College and School Board:

- The school board provides a list of clinically trained teachers that take students.
- College provides a position for an ombudsman that will keep track of the students and perform the following duties:
 - Fill out state reports
 - APEP
 - Pre and post data (data taken from 3 lessons taught at the school)

6. EPI Numbers

- Currently IRSC has 86 students in their program.
- 56 actual students attending
- The other students are within their 3 year window to complete program, however are MIA

7. DOE Information/Contacts

- Kimberly Pippin: over EPI and Bachelor's program
- Mandy Mims - mandy.mimms@fldoe.org or 1-850-245-0583



EPI at EFSC
to Help Teaching Demand in Brevard
May 24, 2018
Melbourne Campus

Meeting called by:	Dr. Linda Miedema
Type of meeting:	Program Meeting: Addition of EPI Program at EFSC with BPS
Attendees:	Dr. Laura Sidoran, Kimberly Greene, Lynnette Thorstensen, and Dr. Holly McKnight

State Approval:

- Kimberly graciously provided DOE Documents needed for the State Approval Process for EPI.
- A. The RTS-2015 form requires certification that:
8. The institution meets accreditation requirements as described in Rule 6A-4.003(1), FAC with documented evidence.
 9. The program has received approval from the institution’s Board.
 10. The institution provides culminating prekindergarten through grade 12 field experience(s) or internship(s) of sufficient length to ensure each student candidate demonstrates and achieves the competencies and skills needed to meet educator certification requirements and to demonstrate his or her ability to positively impact student learning growth.
 11. The institution shall only provide state-approval endorsements on official transcripts for student candidates who successfully complete the program and who earn passing scores on all subtests of the Florida Teacher Certification Examination (FTCE).
 12. Identity of certification ombudsperson who facilitates the process and procedures required for program completers to obtain Florida certification.

- Holly McKnight has agreed to be the ombudsman for the EPI program. As the program grows, we can revisit if there should be any adjustments or added help.

B. Once the RTS-2015 form is submitted:

1. Institutions must submit Form EPI IAS—2015 attached, an electronic program folio containing a [description and supporting evidence of the specified program](#) including the design, delivery, curriculum content and evaluation of the program.
2. Three standards and multiple indicators regarding program candidate and completer quality, field clinical practices, and program effectiveness must be addressed.
3. The quarterly deadlines for electronic folio submission submittal are January 15, April 15, July 15 and October 15 of each year.

- Dr. Miedema to discuss in the June meeting and get the approval for EFSC.
- Laura to work with Holly to complete the electronic folio submission in October?

Take Aways from the Meeting:

- EFSC plans to incorporate an EPI program like IRSC.
- We will use their model of upper division classes to help us start our Elementary and Secondary Education Program.
- We will do this concurrently with the EPI program.
- Holly will contact IRSC to obtain any materials they have regarding the EPI program and acquire course competencies from IRSC for EPI/Education courses.
- We will divide the new courses for EPI, at our Cluster Meeting in August.
- Marika, Kim, and Holly will write the new courses.
- Courses from IRSC to use in addition to our EDF 1005, EME 2040, EDF 2085 are:
 - **EDF 3214 Human Development**
 - **EDG 3343 Instructional Strategies (15 hours in classroom)**
 - **EDG 3949 Practicum (30 hours in classroom of grade/subject intended to teach)**
 - **EDG 4410 Classroom Management**
 - **RED 3360 Teaching Reading**



EPI at EFSC

October 3, 2018

Melbourne Campus

Meeting called by:	Dr. Holly McKnight
Type of meeting:	EPI Institutional Effectiveness and Data Collection
Attendees:	Dr. Laura Sidoran, Dr. Mark Quathammer, Kimberly Greene, Stephanie Burnette, Donna Lake, Dr. Andy Dutra and Dr. Holly McKnight

13. Background:

- Eastern Florida State College is applying to the state to start an EPI program.
- We need to determine verbiage at the institutional level to move forward with the program.
- The focus for this meeting was the indicators below.

14. Action Item: Mark Quathammer will give us a write up.

- 1:2:1 The program describes its plan for annually collecting, monitoring and reporting data on: admitted candidates, enrolled candidates and candidate completers.
- The institution/private provider shall describe the annual process for collecting, monitoring and reporting data on candidates (1) admitted into the program; (2) enrolled in the program; and (3) completed the program. A detailed description of the process shall include which office at the institution/private provider will collect and report this data to the applicable data source (e.g., Board of Governors, Division of Florida Colleges, etc.) and how these data are monitored annually. (Private institutions and providers report their candidate and completer data through the electronic Institutional Program Evaluation Plan (eIPEP) platform.)
- What we have so far: Working with the College’s Institutional Effectiveness Department, data will be collected annually on the number of candidates admitted to the program and completing the program. Students in the IEP program will be coded

differently than regular AA degree seeking students, in order to accurately track their progress and completion through the program.

15. ACTION ITEM: Holly will reach out to BPS for Answers. Red is what she has so far.

- **4.1.1:** The program describes the annual process for how it will collect aggregated data on program candidates and program completers to use for monitoring purposes on each of the following:
 - Impact of p-12 student learning for all employed program completers (*identify the specific types of p-12 student learning data you will collect*); **EFSC will work with Brevard Public Schools to monitor the completers' impact on student learning the first year of teaching after their program completion. Brevard Public Schools would need to give the college access to national assessments, district wide assessments or state assessments for the first year. EFSC would congregate this data annually.**
 - Program completers' performance as evidenced by the Annual Program Performance Report Card (APPR); **Annual Program Performance Report: The state has a template for us to fill in. The data element has an independent scale of 1-4 and an independent weight.**
 - Impact of p-12 student learning for all program candidates during field experiences (*identify the specific types of p-12 student learning data you will collect*); **Pre and Post data taken from 3 lessons taught in the schools in their specified grade level.**
 - Program candidates' culminating field experience performance evaluations in demonstration of mastery of the UCC; **Uniform Core Curricula would be assessed by the internship evaluations.**
 - Employer satisfaction surveys; **Do we have a way of maintaining qualitative surveys or perhaps we could have a numerical survey?**
 - Program candidates' FTCE subtest results at the competency level; and **We need to track the results of their Florida Teacher certification Exams. How do we describe this process?**
 - Other data results under consideration by the program (if applicable). **Do we want additional data collected? If so, what?**



CCC & AS DEGREE EDUCATION

February 13, 2019
Rm 156Q

1:00-2:00 pm B2,

Meeting called by:	Dr. Holly McKnight
Type of meeting:	Fact finding mission to see how IRSC incorporates EPI into their college of Education
Attendees:	Dr. Laura Sidoran, Kimberly Greene, Marika Koch, Kim Coluccio, Carrie Wells, Dr. Dustin Files, and Cristen Jacobson.

- Introductions
- CCC and AS Degree to be available Fall 2019
- Working with BPS to keep our students in the county
- College-wide initiative to increase enrollment
- Performance based funding

1. CCC Educational Assisting

- CCC to allow Dual Enrollment for Teaching Academy students
- 15 credit hours for CCC**
- Allows for a completion point for Education students

2. AS Degree Educational Technology Assistant

- Allows for a feeder program for the CCC
- Gives another avenue for students to earn a degree and go into workforce

3. Concerns:

- Adding additional course to CCC
- Change verbiage from State program Description to other terminology
- Other comments



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- Introductions
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4. CCC Educational Assisting

- CCC to allow Dual Enrollment for Teaching Academy students
- 15 credit hours for CCC**
- Allows for a completion point for Education students

5. AS Degree Educational Technology Assistant

- Allows for a feeder program for the CCC
- Gives another avenue for students to earn a degree and go into workforce

6. Concerns:

- Adding additional course to CCC
- Change verbiage from State program Description to other terminology
- Other comments



**EFSC –UCF Education Articulation Agreement Meeting
April 11, 2018; 2:00 PM – 3:30 PM**

Meeting called by:	UCF College of Education
Type of meeting:	SKYPE: Articulation and Program Updates
Attendees:	Dr. Linda Miedema, Dr. Laura Sidoran, Victoria Candelora, Andrea Small, Dr. Judith Levin, Dr. Elizabeth Hoffman, Dr. Mike Hynes, Dr. Jesse Mendez, Dr. Harrison Oonge, Dr. Glenn Lambie, and Dr. Holly McKnight

1. Introductions:

- Dr. Harrison Oonge led the meeting.

2. Program Changes/Updates from UCF and EFSC

a. Secondary Education – Dr. Janet Andreasen

- Removal of EDF 2085 Diversity for Educators.
- Removal of EME 2040 Technology for Educators.
- Secondary students will make up those course hours by taking courses in their content area.
- Dr. Miedema was concerned about the lack of courses left for faculty to teach with the removal of Diversity and Technology.
- Dr. Hines indicated the new courses added to elementary courses.
- Dr. McKnight pointed out faculty that taught secondary are not credentialed to teach elementary courses.
- Dr. Miedema asked Dr. Hines if they would accept the AA degree or if they would go back looking at credentialing.
- Dr. Hines agreed UCF will accept the AA from EFSC and will not go back.

b. Elementary Education – Dr. Elizabeth Hoffman & Dr. Holly McKnight

- Removal of EDF 2085 Diversity for Educators.
- Removal of EME 2040 Technology for Educators.
- Addition of EDG 2949 Experiential Learning in Education
- Addition of MHS 2330 Career Planning.

Acceptable substitutions for MHS 2330: Career Planning:

- I. SLS 1301 : Career Exploration
- II. SLS 2401: Discover Your Major & Career
- III. OST 1055: Career Planning

c. Early Childhood (Tracks 1 & 2) – Dr. Judith Levin & Victoria Candelora

- Victoria explained our need for the combined course, due to our existing agreement with FCJ.

- UCF agreed to accept our combined course as an elective.
- UCF will not accept our combined course in the place of the two courses.

d. Required Amendments to the Articulation

- UCF wants to remove EDF 2085 and EME 2040 from our agreement.
- Course substitutions for EDF 2085 and EME 2040 given if taken prior to Fall 2019.
- See attached Course Substitution sheet (there are two Sheets: 1 and 2).

3. Course Decisions - Dr. Judith Levin

- Discussion of courses
- Education courses we offer at EFSC
 - I. EDF 1005 Intro to the Teaching Profession
 - II. EDF 2130 Child and Adolescent Development
 - III. EDF 2085 Diversity for Educators.
 - IV. EME 2040 Technology for Educators
 - V. EDE 2280 Arts and Wellness in the Elementary Classroom
 - VI. EDF 2720 Children in Schools: Legal, Ethical and Safety Concerns
 - VII. EDF 2030 Classroom Management
- Required courses for Transfer to UCF
 - I. EDF 1005 Intro to the Teaching Profession
 - II. EDF 2130 Child and Adolescent Development
 - III. EDE 2280 Arts and Wellness in the Elementary Classroom
 - IV. EDF 2720 Children in Schools: Legal, Ethical and Safety Concerns
 - V. EDG 2949 Experiential Learning in Education (Do NOT currently teach).
 - VI. MHS 2330 Career Planning (Do NOT currently teach).

4. Communication

- Dr. Miedema stressed the importance of our students having a clear pathway to a certification.
- Dr. Miedema expressed concern with too many pathways to different institutions.
- Dr. Hines disagrees with the new courses being problematic since so many students transfer to UCF.
- Dr. McKnight stressed the need for secondary in Brevard County.
- Dr. Mendez agreed that students should come first.
- Dr. Hines discussed TV distance learning to the Orlando Campus.
- Dr. Miedema expressed our lack of funding and inability to pay for this technology.

5. Curriculum alignment: Sharing of course and program information

- a. UCF will share the course syllabi for EDG 2949 Experiential Learning in Education and MHS 2330 Career Planning.

6. Closure

- Dr. Sidoran suggested that we digest the information exchanged today.
- Dr. Sidoran told the group that we would discuss amongst ourselves at a follow up meeting, after which we would contact UCF for a second meeting.
- Dr. McKnight will pull the group back together for the next meeting when UCF comes to us for a face-to-face meeting.
- The meeting ended on a positive note, of high fives.

Meeting called by:	Dr. Miedema
Type of meeting:	Fact finding mission to see how IRSC incorporates EPI into their college of Education
Attendees:	Dr. Laura Sidoran, Dr. Sandy Handfield, Stephanie Burnette, Dr. Holly McKnight,

Eastern Florida State College

Indicator 1.1 Admission Requirements: The program will admit candidates that have met the state-mandated requirements outlined in s. 1004.85(3)(b), Florida Statutes, prior to admission, ensuring candidates have obtained a statement of status of eligibility that indicates his or her eligibility for the certification subject area.

1. Admission requirement specified in section 1004.85(3)(b), F.S., which requires a candidate to obtain a statement of status of eligibility (SOE) indicating the candidate is eligible for the certification subject listed on the SOE. This will be turned into the Program Coordinator.
2. Complete the Eastern Florida State College admissions application.
3. Obtain security clearance through fingerprinting for a background check with Brevard Public Schools.
4. Interview with candidates. Prior to admissions to the program, the Education Program Coordinator/Ombudsman will meet with potential candidates and facilitate the process and procedures required in the EPI program at EFSC.
5. Candidates must pass the General Knowledge Test before entry into the EPI program at Eastern Florida State College (EFSC). Test Results must be submitted to the college registrar before they are admitted into the program.
6. Prospective candidates must submit a writing sample before entry to the EPI program at EFSC. This will be submitted to the Program Coordinator and filed in the candidate's individual folder.

Questions:

Limited Access?

How things will be handled once applications start coming in?

Process?

Successful completion of the following courses before the Student Teaching experience:

- **EDF 2005 Intro to the Teaching Profession (*15 hours in classroom)**

- EDF 2085 Diversity
- EME 2040 Introduction to Technology for Educators
- EDF 3214 Human Development
- EDG 3343 Instructional Strategies (*15 hours in classroom)
- EDG 3949 Practicum (*30 hours in classroom of grade/subject intended to teach)
- EDG 4410 Classroom Management
- RED 4325 Subject Area Reading

Substitutions?

**Educational Assisting CCC
Program of Study Chart**

COURSE	TITLE	CREDIT HOURS	CONTACT HOURS	COURSE CHANGE	LAB FEE	TERM	PROGRAM STUDENT LEARNING OUTCOME (IF NEW or CHANGED)	LINKED CORE ABILITY
GENERAL EDUCATION COURSES (Credits Needed: 15)								
EDF 1005	Intro to the Teaching Profession**	3	48	AE				-
EDF 2130	Child and Adolescent Development**	3	48	AE				-
EDF 2030	Effective Classroom Management*	3	48	AE				-
EME 2040	Intro to Technology in Education	3	48	AE				-
EDF 2085	Intro to Diversity for Educators**	3	48	AE				-
TOTAL CREDITS NEEDED:		15	240					

Appendix B.1.c Course Description

MCBC 3020 – Biology of Microorganisms

Credit Hours: 5

Prerequisites: BSCC 1010, CHM 2210, and CHML 2210 - all courses with a grade of "C" or higher or completion of an AS in Veterinary Technology, Dental Hygiene, Medical Laboratory Technology, Respiratory Technology or Nursing. Upper level course in microbiology designed for majors as well as those enrolled in pre-professional programs. This course includes treatment of microorganisms including archaeans, bacteria, viruses, protists, protozoans, and certain fungi. Also includes topics such as history, taxonomy, comparative microbiology, pathological microbiology, microbial physiology and metabolism, microbial genetics, and applied and ecological microbiology. Lab Fee.

PCB 3063 - Genetics

Credit Hours: 3

Prerequisites: BSCC 1011 or BSCC 1426 and CHM 1046 and CHML 1046 - all courses with a grade of "C" or higher or completion of AS in Veterinary Technology, Dental Hygiene, Medical Laboratory Technology, Respiratory Technology, or Nursing. An introduction to fundamental properties of inheritance in eukaryotic organisms, emphasizing examples in man. Basic concepts are developed for the nature, organization, transmission, expression, recombination, and function of genetic materials, and principle are derived for genetically characterizing populations.

ZOOC 1010 - Zoology

Credit Hours: 4

Prerequisite: BSCC 1010 with a grade of "C" or higher. Meets General Education requirement. Advanced course recommended for biology and related majors providing a basic understanding of the animal kingdom and associated terminology as well as skills in observation and dissection of animals. Includes study of animal taxonomy, morphology, physiology, embryology, histology, ecology, life history, and economic importance. Three hours of lecture and two hours of lab per week. Lab Fee.

ZOOC 4603 - Developmental Biology

Credit Hours: 5

Prerequisite: BSCC 1010, CHM 1046, and CHML 1046 - all courses with a grade of "C" or higher or completion of an AS in Veterinary Technology, Dental Hygiene, Medical Laboratory Technology, Respiratory Technology or Nursing. This course explores embryology and subsequent development of vertebrate and invertebrate animals, with an emphasis on humans. Topics to be covered include gametogenesis, fertilization, cleavage, gastrulation, neurulation, organogenesis, morphogenesis, and the development of form and patterns in organisms with stress placed on genetic cues and regulation. Lab Fee.

PCB 3134 - Cell Biology

Credit Hours: 3

Prerequisite: BSCC 1010, CHM 1046, and CHML 1046 - all courses with a grade of "C" or higher. This course serves as an in-depth exploration of cell structure and mechanics. Topics to be covered

include structure and function of membranes, ion pumps, ion channels, transmembrane signaling, membrane transport, protein and nucleic acid functions, the role of endoplasmic reticulum (ER) and Golgi apparatus, the biosynthesis of intracellular organelles in animal and plant cells, the cytoskeleton, motility, cell-cell interactions, mitosis, the control of cell division, and discussions on molecular.

EDF 2720 - Children in Schools: Legal, Ethical, and Safety Concerns

Credit Hours: 3

This course provides an analysis of the legal, ethical, and safety concerns in educational settings. This course is correlated to the Florida Educator Pre-professional and Accomplished Practices and contains a mandated 15 hours direct field experience/service learning component.

EDF 3214 Human Development and Learning

Credit Hours: 3

This course teaches learning theories as they apply to student development, learning styles, learning ability as well as disabilities. Students explore varying ideologies relative to intelligence and intellectual assessment. Additionally, students are required to arrange visits totaling at least 15 hours to area schools to observe teaching and learning styles, the interactions between student and teacher, and intervention techniques. Additional fee for background check is required by school district.

TSL 4324 ESOL Strategies for the Content Area Teachers

Credit Hours: 3

This ESOL (English for Speakers of Other Languages) Strategies course is designed to help content teachers gain the skills they need to provide effective instruction to ELLs (English Language Learners) in the mainstream classroom. Key concepts from the five ESOL Endorsement courses: Language Principles, Cross-Cultural Communication, Methods of Teaching ESOL, Curriculum and Materials Development, and Testing and Evaluation are also addressed.

EDG 3343 Instructional Strategies

Credit Hours: 3

This course teaches an overview of instructional models and strategies. Emphasis is placed on principles of State standards, instructional methods, lesson planning, and instruction. Students develop knowledge of instructional models and lesson plan construction for effective implementation including the diverse student populations.

EDF 4430 Measurement, Evaluation and Assessment

This course teaches basic concepts in educational measurement utilizing measurement in instruction, construction of teacher-made tests and other classroom assessments, portfolio and performance assessment, and interpretation of standardized test scores.

EDG 4410 Classroom Management and Communication

Credit Hours: 3

This course provides basic skills and knowledge for creating a learning environment that encourages positive social interaction and effective communication among members of the learning community.

The course emphasizes attitudes, language patterns, values and behaviors. The course also includes methods and strategies for consulting with other school professionals and parents.

EEX 4242 Teaching Exceptional Students in Secondary Schools

Credit Hours: 3

The purpose of this course is to examine specific instructional interventions, approaches, current issues, curriculum, and learning strategies appropriate for working with adolescents with exceptional needs in a secondary setting. This course requires field experience in the public schools with at least one ESE student.

SCE 3940 Internship 1

Credit Hours: 3

This course provides the opportunities to present interactive curriculum projects to middle school students in local area school districts. Students spend a minimum of 30 school-based hours in the middle school classroom. Project presentations are coordinated with in-service middle school teachers and their curriculum schedules and needs.

This course addresses specific Sunshine State Standards, subject matter competencies, and pedagogy pertinent to the discipline and required for certification. Students who are majoring in science education and who will be obtaining teacher certification in grades 5-9 or 6-12 are eligible for this class.

RED 4325 Subject Area Reading

Credit Hours: 3

This course provides teachers with an understanding to teach reading as an ongoing strategic process resulting in students comprehending diverse text in targeted subject areas. Such techniques will include how writing, listening, and speaking support the teaching of reading, and how family involvement supports student achievement in reading. Teachers use data to accurately identify a problem, analyze the problem to determine why it is occurring, design and implement instruction/interventions, and evaluate the effectiveness of instruction/interventions. The problem solving process is analyzed as being recursive and ongoing, and utilized for effective instructional decision making of the legal, ethical, and safety concerns in educational settings. This course is correlated to the Florida Reading Competencies and Educator Pre-professional and Accomplished Practices and contains a mandated 15 hours direct field experience/service learning component. Students desiring to complete the direct field experience must undergo a district approved level two security clearance.

SCE 4943 Seminar in Science Teaching

Credit Hours: 3

This course demonstrates how to design instructional strategies, planning techniques, evaluation procedures and class management skills for science courses in the secondary school environment.

SCE 4941 Student Teaching in Science

Credit Hours: 10

This course prepares a teacher candidate to demonstrate pre-professional competencies during a 12 week, full-time internship in a public school approved by the department.

Contact hours: a minimum of 35 hours per week for 12 weeks.

Appendix B.1.d Board Approval to Develop BS in Education (Excerpts from Meeting Minutes)

EASTERN FLORIDA STATE COLLEGE
BOARD OF TRUSTEES REGULAR MEETING

April 15, 2019
9:00 A.M.

Public Safety Institute
Board Room 008-301
Melbourne Campus

Present: Alan H. Landman, Chair; Ronald Howse, Vice Chair; Bruce Deardoff; Dr. Edgar Figueroa; Moses L. Harvin, Sr.; and James H. Richey, Secretary.

I. CALL TO ORDER

Mr. Landman called the meeting to order at 9:00 a.m., followed by the recitation of the Pledge of Allegiance and the approval of the agenda. Mr. Landman stated Ron Howse, Vice Chair, is running late but will be here soon.

Mr. Landman asked for a motion to approve the agenda. Mr. Deardoff so moved. Mr. Harvin seconded the motion. **Action:** motion carried by four to nothing vote. Those voting in favor: Deardoff, Figueroa, Harvin, and Landman.

V. NEW BUSINESS

A. Update and Approval of new Academic Programs

Dr. Richey invited Dr. Linda Miedema, Vice President of Academic and Student Affairs/Chief Learning Officer, to update the Board on the new programs. Dr. Miedema stated that each board member should have a list of the new programs in their board packages and would like to highlight a few of them. In 2018 to 2019, EFSC did two specializations in the organizational management bachelor's degree, one BSN program, two new AS degrees, and one new certificate program. Eastern Florida plans three additional specialization in organizational management, two AS degrees, and nine certificate programs, totaling 34 programs that are either BSN or bachelor's degree tracks, 35 AS degrees that we now offer, 1 AA degree, and 83 certificate programs.

The next step was to look at how many individuals within the community that already have their bachelor's degree, but are not qualified to teach. Therefore, Eastern Florida developed the Educator Prep Institute (EPI), which takes people with bachelor's degrees, puts them through some coursework, so they can sit for their certification exams and through alternate certification, become a teacher. Eastern Florida reached out to the public schools for their approval, which they embraced. Then Eastern Florida applied through the Florida Department of Education, and received approval to start the EPI program. That by itself will not meet all the needs but Eastern Florida also developed curriculum for both the college credit certificate and an associate's degree for educational assisting. This allows the helper in the classroom, but also builds towards the bachelor's degree. Eastern Florida will be going forward with a bachelor's degree in education, but with a different focus, one that meets the needs of the local community. Also, STEM focused bachelor's degree at both the elementary and the secondary level, which will help teachers prepare to teach in high tech corridor.

Dr. Miedema asked if any of the trustees had any questions. Mr. Landman inquired if any of the other colleges offering the STEM focus. Dr. Miedema replied negative. Mr. Landman asked with all the new programs, will Eastern Florida hire professors, teachers, or cross train. Dr. Miedema stated there would be a mixture of that and the college has a pool of talent already. The faculty has been involved in every step of the process in developing the curriculum and the requirements for teaching each of these courses. The college will be able to use current faculty in many areas.

Mr. Harvin inquired how the new programs would affect EFSC's budget. Dr. Miedema replied part of the evaluation the college does includes cost to start programs and maintain these programs. For example, in the advanced manufacturing, the college received grant money that helps with the cost of curriculum development along with equipment and facilities that is needed. Once the programs are up and running, the tuition dollars generated cover the cost of faculty. After further discussion, Mr. Landman called for a formal motion to approve item A. Update and Approval on new Academic Programs. Mr. Howse so moved, Mr. Harvin seconded the motion. **Action:** motion carried by unanimous vote. Those voting in favor: Deardoff, Figueroa, Harvin, Howse and Landman.

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<https://easternflorida.edu/administration-departments/board-of-trustees/documents/2019/bot-minutes-4-15-19.pdf>